

April 15, 2025

Mr. Matthew Conlon
Mined Land Reclamation Specialist
NYSDEC Region 1
Division of Mineral Resources
50 Circle Road
SUNY Stony Brook, New York 11790

Re: Revised Fourth Quarter 2024 Ground Water Monitoring Results
Sparrow Mining of Suffolk, LLC
Town of Brookhaven, Suffolk County, New York
NYSDEC DMR File 10060

Dear Mr. Conlon:

This letter report prepared by Alpha Geological Services, D.P.C. (Alpha) transmits the results of the Fourth Quarter 2024 ground water monitoring event conducted at the Sparrow Mining of Suffolk, LLC Mine, in Manorville, Town of Brookhaven, Suffolk County, New York. The quarterly event included collecting ground water samples for laboratory analysis as required by the Mined Land Reclamation Permit (MLRP) 1-4722-00218/00001. The November 2024 event was the fifth quarterly round in which Sparrow has participated in the NYSDEC and NYSDOH's Long Island Mines Ground Water Study (LIMGWS). The sampling was performed in general accordance with the NYSDEC's *Guidance Document for Ground Water Monitoring Sand & Gravel Mines in Region 1*, dated February 6, 2020 and the *Ground Water Monitoring Plan for Sparrow Mining of Suffolk, LLC*, dated September 2023.

Figure 1 shows the site location; and Figure 2 shows the site layout, location of mining activities, and the ground water monitoring locations. The work on November 19 and 20, 2024 included documenting current mining activities, inspecting and measuring water levels in accessible monitoring wells, and sampling ground water quality from eleven monitoring wells. The well locations are shown on Figure 2. The second quarter monitoring report documented the status of each of the existing wells. There are eight monitoring wells currently part of the permit-required site water quality monitoring program: MW-3A, MW-6AR, MW-6BR, MW-6CR, MW-7A, MW-7B, MW-7C, and MW-8A. Wells MW-8B, MW-8C2, and MW-9B are not required to be sampled per the permit but are sampled as part of the LIMGWS.

Current Mining Activities

The approximate location of the dredge on November 20, 2024 is shown on Figure 2. Sparrow has been mining below the water table since 2000. Dredging operations are generally focused on the northern half of the mine pond and have been for several years.

Ground Water Elevations

The static depth to water was measured on November 19, 2024 in all accessible wells. The water level measurements were converted to ground water elevations and are provided on Table 1. The ground water elevations calculated for the November 2024 event are within the historic range of measured values. The general ground water flow direction is from the north to the south, which is consistent with regional ground water flow. Figure 3 considers the influence of the flattened lake surface on the elevation of the water table around the lake and the direction of ground water flow relative to the lake based on the shallow “A” monitoring wells. Figure 4 depicts the ground water flow direction based on the intermediate “B” monitoring wells. The lake elevation (28.5 ft msl) is estimated based on a manual transit measurements relative to the top of casing of well MW-7A on November 19, 2024. The water table is slightly lowered at the north end of the lake. This results in radial ground water flow inward toward the lake at the north end. The ground water table is slightly elevated at the south end of the lake and results in radial outward flow to the southwest, south, and southeast at the south end of the mine. The ground water contours on Figures 3 and 4 reflect the concept that the lake is a discharge point for the water table at the upgradient end and a recharge source at the downgradient end.

Ground Water Quality Sampling and Results

Alpha purged and collected samples from the monitoring wells using the “Low Flow” purging and sampling method. Purging and sampling was conducted using stainless steel submersible pumps in all wells. New polyethylene tubing was used in each well. High-density polyethylene tubing (HDPE) was used in wells MW-3A, MW-6AR, MW-6BR, and MW-9B in accordance with guidance for sampling wells for per- and polyfluorinated alkyl substances (PFAS). The pump intake was set at the approximate center of the wetted screen in each monitoring well.

The pump discharge was connected to a flow-through cell with a multi-parameter meter to monitor temperature, pH, specific conductivity, turbidity, oxidation-reduction potential, and dissolved oxygen. The wells were purged at a rate that minimized drawdown. Purging continued until the measured field parameters stabilized within the criteria described in the USEPA’s “Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells” (September 2017 revision). Drawdown in each well was less than 0.1 feet. Purging and sampling field record forms are included in Appendix A. A summary of the final, stabilized field parameters, which were measured at the end of purging, are included on Table 2.

Laboratory-supplied sample containers were filled directly from the pump discharge prior to passing through the flow-through cell. The samples were placed in a cooler on ice and submitted to Pace Analytical Lab (Pace) in Westborough, MA, a NYSDOH-approved laboratory, under chain of custody. The samples were analyzed for Sparrow’s permit-required analytes including volatile organic compounds (VOCs) by Method 8260 and iron and manganese. In accordance with the Long Island Ground Water Study, the samples were also analyzed for semi-volatile organic compounds

(SVOCs) by Method 8270, total and dissolved target analyte list (TAL) metals, and the general chemistry parameters chloride, fluoride, bromide, iodide, sulfate, sulfide, phosphate, nitrate/nitrite, ammonia, total kjeldahl nitrogen (TKN), alkalinity, and total dissolved solids. Samples from upgradient wells MW-3A and MW-9B and downgradient wells MW-6AR and MW-6BR were also submitted for analysis of radionuclides and emergent contaminants as part of the Long Island ground water study. The sample volume for dissolved metals analysis was field filtered using new, dedicated in-line 0.45 micrometer filters. Quality assurance-quality control (QAQC) samples including one matrix spike/matrix spike duplicate pair (MW-9B), a field duplicate (MW-6AR), trip blank (VOCs only), a field blank, and an equipment rinse blank; were submitted with the ground water samples.

The laboratory provided a category “B” type deliverables package, as requested, and will be provided to the NYSDEC separately. Alpha’s chemist validated the data and prepared a Data Usability Summary Report (DUSR). The DUSR is included in Appendix B. Table 2 summarizes the VOCs, SVOCs, and metals results from the 4th Quarter 2024 event. Table 3 summarizes the laboratory results for the general chemistry parameters for the LIMGWS. Table 4 and Table 5 summarize the radionuclides and emerging contaminants results, respectively.

No VOCs were detected in any of the ground water samples (Table 2). Trace levels of three SVOCs were reported above the detection limit, but below the quantitation limit and are flagged “J” for estimated. None of the SVOCs were reported at concentrations that exceeded their respective New York State Class GA Water Quality Standards (NYSGWQS).

No metals except manganese at MW-6AR and copper at MW-8B were reported at concentrations exceeding the respective NYSGWQS (Table 2). Total manganese was detected at 3,541 micrograms per liter (µg/L) at MW-6AR. The NYSGWQS for manganese is 300 µg/L. Manganese was detected in the filtered (dissolved) samples at MW-6AR at a similar concentration (3,526 µg/L). Copper was reported at 1,067 µg/L in the unfiltered sample from MW-8B, but was not detected in the filtered (dissolved sample). Previous results for total copper at MW-8B were 0.47 µg/L in August 2024 and 3.23 µg/L in June 2024.

The general chemistry parameters are summarized on Table 3. The reported concentrations are below the NYSGWQS. The results are consistent with previous results.

The November 2024 sampling round included submitting samples from upgradient wells MW-3A and MW-9B and downgradient wells MW-6AR and MW-6BR for analysis of radionuclides and emergent contaminants. The radionuclides included isotopes of radium (Ra-226 & Ra-228), thorium (Th-228, Th-230, and Th-232), and uranium (U-238) and are summarized on Table 4. Trace levels of the naturally occurring radionuclides Ra-228 and U-238 were reported at levels well below the NYSGWQS. Thorium isotopes were not detected; however, the laboratory reporting limits were elevated and did not meet the requirements of the LIMGWS. The laboratory analyzed the samples using the wrong method. There was insufficient sample volume to re-run the correct analysis.

Samples will be submitted analysis of thorium isotopes at the required reporting limits during the second quarter 2025 event

The emergent contaminants tested for included 1,4-dioxane PFAS and are summarized on Table 5. 1,4-dioxane was not detected in any of the ground water samples. Several PFAS, including perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), were detected in the ground water samples. The maximum concentrations of PFOA (4.43 nanograms per Liter [ng/L] at MW-9B) and PFOS (2.81 ng/L at MW-6BR) were reported at downgradient wells. PFOS was also detected in upgradient wells MW-9B (0.534 ng/L) and MW-3A (0.782 ng/L). The NYSGWQS for PFOA is 6.7 ng/L and for PFOS is 2.7 ng/L

The analytical data will be submitted electronically to the NYSDEC's environmental data management system under a separate email. The next quarterly ground water monitoring event is anticipated to be conducted in February 2025. Please contact me if you have questions regarding this report.

Sincerely,
Alpha Geoscience



Scott M. Hulseapple, PG
Hydrogeologist

cc: Matt Metz – Sparrow
Sarken Dressler – NYSDEC
Steve Trader – Alpha Geoscience

Attachments:

- Table 1 – Ground Water Levels and Field Parameters
- Table 2 – Ground Water Analytical Results
- Table 3 – General Chemistry Ground Water Analytical Results
- Table 4 – Radionuclides in Ground Water Analytical Results
- Table 5 – Emerging Contaminants in Ground Water Analytical Results
- Figure 1 – Site Location Map
- Figure 2 – Well Location Map and Mining Activity November 2024
- Figure 3 – Ground Water Elevation Map – November 19, 2024 – Shallow Wells
- Figure 4 – Ground Water Elevation Map – November 19, 2024 – Intermediate Wells
- Appendix A – Field Sampling Forms
- Appendix B – Laboratory Summary Reports

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TABLE 1
Ground Water Levels and Field Parameters
Fourth Quarter 2024
Sparrow Mining of Suffolk, LLC, Manorville, New York

Well	Measuring Point Elevation (ft msl)	Depth to Water (feet) 11/19/2024	Ground Water Elevations (feet msl) 11/19/2024	Measured Field Parameter						
				Sample Date	Temperature	Specific Conductivity	pH	ORP	Dissolved Oxygen	Turbidity
					°C	µS/cm	SU	mV	mg/L	NTU
Well 3A	71.38	42.05	29.33	11/19/2024	12.2	69	5.60	327	9.7	0
Well 3C	70.79	41.60	29.19	--	--	--	--	--	--	--
Well 5C	101.27	72.81	28.46	--	--	--	--	--	--	--
Well 6AR	81.13	54.60	26.53	11/20/2024	20.6	247	7.18	113	0.0	0
Well 6BR	81.03	53.80	27.23	11/20/2024	12.1	350	7.64	139	0.0	0
Well 6CR	81.21	54.28	26.93	11/20/2024	11.6	543	7.72	110	0.0	0
Well 7A	52.00	23.67	28.33	11/19/2024	15.0	211	6.45	168	0.3	0
Well 7B	51.96	23.88	28.08	11/19/2024	13.1	253	6.77	102	0.0	1.9
Well 7C	52.28	24.21	28.07	11/19/2024	11.9	235	6.63	145	0.0	0
Well 8A	92.80	65.58	27.22	11/20/2024	18.6	248	6.67	52	2.2	0
Well 8B	93.46	66.11	27.35	11/20/2024	14.0	260	7.56	62	0.0	0
Well 8C2	93.54	66.30	27.24	11/20/2024	13.4	288	7.52	54	0.0	0
Well 9B	60.96	32.02	28.94	11/19/2024	11.5	162	5.52	337	1.6	0

Notes:

-Elevations are in feet relative to mean sea level (msl), North American Vertical Datum of 1988 (NAVD88).

survey conducted by Strategic Mining Solutions on November 15, 2022

-Wells 3C and 5C are not part of the monitoring program

mg/L - milligrams per liter

°C - degrees celcius

ORP - Oxidation-Reduction Potential in millivolts (mV)

SU - Standard pH units

µS/cm - microsiemens per centimeter

NTU - Nephelometric Turbidity Units

TABLE 2																	
Ground Water Analytical Results																	
Fourth Quarter 2024																	
Sparrow Mining of Suffolk, LLC, Manorville, New York																	
Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6AR (Duplicate)	Well 6BR	Well 6CR	Well 7A	Well 7B	Well 7C	Well 8A	Well 8B	Well 8C2	Well 9B	Field Blank	Equipment Blank	Trip Blank
			11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024	11/19/2024	11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024	11/19/2024
Volatile Organic Compounds																	
1,1,1-Trichloroethane (TCA)	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,1,2,2-Tetrachloroethane	5	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,1,2-Trichloro-1,2,2-Trifluoroethane	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,1,2-Trichloroethane	1	ug/l	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U	1.5U
1,1-Dichloroethane	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,1-Dichloroethene	5	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2,3-Trichlorobenzene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,2,4-Trichlorobenzene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,2-Dibromo-3-Chloropropane	0.04	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,2-Dibromoethane (Ethylene Dibromide)	0.0006	ug/l	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
1,2-Dichlorobenzene	3	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,2-Dichloroethane	0.6	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
1,2-Dichloropropane	1	ug/l	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U
1,3-Dichlorobenzene	3	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,4-Dichlorobenzene	3	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
1,4-Dioxane (P-Dioxane)	0.35	ug/l	250U	250U	250U	250U	250U	250U	250U	250U	250U	250U	250U	250U	250U	250U	250U
2-Hexanone	50	ug/l	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Acetone	50	ug/l	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Benzene	1	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromochloromethane	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Bromodichloromethane	50	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Bromoform	50	ug/l	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Bromomethane	5	ug/l	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5UJ	2.5U	2.5UJ	2.5UJ	2.5UJ
Carbon Disulfide	NS	ug/l	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Carbon Tetrachloride	5	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Chlorobenzene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Chloroethane	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Chloroform	7	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Chloromethane (Methyl Chloride)	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
cis-1,2-Dichlorethene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
cis-1,3-Dichloropropene	0.4	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Cyclohexane	NS	ug/l	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Dibromochloromethane	50	ug/l	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Dichlorodifluoromethane	5	ug/l	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Ethylbenzene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Isopropylbenzene (Cumene)	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
m,p-Xylene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Methyl Acetate	NS	ug/l	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Methyl Ethyl Ketone (2-Butanone)	50	ug/l	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	NS	ug/l	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
Methylcyclohexane	NS	ug/l	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U
Methylene Chloride	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
o-Xylene (1,2-Dimethylbenzene)	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
Styrene	5	ug/l	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U	2.5U
tert-Butyl Methyl Ether	10																

TABLE 2
Ground Water Analytical Results
Fourth Quarter 2024
Sparrow Mining of Suffolk, LLC, Manorville, New York

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6AR (Duplicate)	Well 6BR	Well 6CR	Well 7A	Well 7B	Well 7C	Well 8A	Well 8B	Well 8C2	Well 9B	Field Blank	Equipment Blank	Trip Blank
			11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024	11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024	11/19/2024	11/20/2024
Nickel	100	ug/L	2U	0.98J	1.21J	2U	1.04J	2U	0.58J	0.58J	14.02	2U	2U	2U	2U	2U	--
Potassium	NS	ug/L	1640	3220	3330	3750	4740	1980	2270	2060	2550	2280	3200	2320	100U	100U	--
Selenium	10	ug/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	--
Silver	50	ug/L	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	--
Sodium	20000	ug/L	5330	12500	13100	12200	13600	11400	12800	12800	12700	12800	12100	7440	500U	500U	--
Thallium	0.5	ug/L	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	--
Vanadium	NS	ug/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	--
Zinc	2000	ug/L	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	--
Mercury	0.7	ug/L	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	--
Dissolved Metals																	
Aluminum	NS	ug/L	15.4	10U	10U	10U	10U	10U	10U	10U	22.5J	10U	10U	6.15J	--	--	--
Antimony	3	ug/L	4U	4U	2.25J	4U	4U	4U	4U	4U	4U	4U	4U	1.98J	--	--	--
Arsenic	25	ug/L	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	--	--	--
Barium	1000	ug/L	18.63	19.68	20.27	42.59	42.93	17.78	19.06	23.35	29.37	25.83	22.97	52.92	--	--	--
Beryllium	3	ug/L	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	--	--	--
Cadmium	5	ug/L	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	--	--	--
Calcium	NS	ug/L	4060	21800	22000	38900	70400	16500	23100	16900	21100	25700	29400	16300	--	--	--
Chromium, Total	50	ug/L	0.58J	0.35J	0.4J	0.52J	0.34J	0.95J	0.37J	1.21	4.9	0.33J	0.43J	1.58J	--	--	--
Cobalt	NS	ug/L	0.5U	0.54	0.62	0.5U	0.5U	0.5U	0.5U	0.5U	0.18J	0.5U	0.5U	0.5U	--	--	--
Copper	200	ug/L	1U	0.41J	1U	0.52J	0.86J	1U	1U	1U	1U	1U	1U	0.46J	--	--	--
Iron	300	ug/L	50U	50U	20.2J	50U	50U	50U	50U	50U	82.7	50U	50U	50U	--	--	--
Manganese	300	ug/L	18.08	3526	3630	46.39	2.98	121.6	11.95	0.93J	3.86	0.80J	0.46J	2.77	--	--	--
Iron + Manganese	500	ug/L	18.08	3526	3650	46	2.98	121.6	11.95	0.93	86.6	0.80	0.46	2.77	--	--	--
Lead	25	ug/L	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	--	--	--
Magnesium	35000	ug/L	1210	4770	4860	8820	15300	5360	5890	7000	5760	4840	5840	2430	--	--	--
Nickel	100	ug/L	2U	2U	2U	2U	2U	2U	2U	2U	6.07	2U	2U	2U	--	--	--
Potassium	NS	ug/L	1520	3040	3030	3620	4400	1760	2020	1790	2160	2140	3000	2280	--	--	--
Selenium	10	ug/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	--	--	--
Silver	50	ug/L	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	0.4U	--	--	--
Sodium	20000	ug/L	4960	12100	12400	11800	13200	10700	12000	11800	11200	12200	11800	7520	--	--	--
Thallium	0.5	ug/L	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	--	--	--
Vanadium	NS	ug/L	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U	--	--	--
Zinc	2000	ug/L	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	--	--	--
Mercury	0.7	ug/L	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	0.2U	--	--	--

Notes:
- All concentrations reported in micrograms per liter (µg/L), which is approximately equivalent to parts per billion (ppb).
- NYS Water Quality Standards and Guidance Values, Class GA, TOGS 1.1.1
- "NS" indicates no ground water standard has been established.
- "U" indicates not detected at the indicated quantitation reporting limit (RL).
- "J" indicates estimated value.
- "D" indicates sample was analyzed at a dilution.
- Shaded cells indicate the value exceeds the NYS Water Quality Standard.

TABLE 3
General Chemistry Ground Water Analytical Results
Fourth Quarter 2024
Sparrow Mining of Suffolk, LLC, Manorville, New York

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6AR (Duplicate)	Well 6BR	Well 6CR	Well 7A	Well 7B	Well 7C	Well 8A	Well 8B	Well 8C2	Well 9B
			11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024	11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024
Alkalinity, Bicarbonate (As CaCO ₃)	NS	mg/l	10.4	67.8	67.4	113	224.0	49.4	71.8	42.7	61.4	62.2	77.5	9.8
Alkalinity, Carbonate (As CaCO ₃)	NS	mg/l	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U
Bromide	2	mg/l	0.102	0.176J-	0.283J-	0.228J-	0.358J-	0.164J-	0.178J-	0.157J-	0.168J-	0.152J-	0.167J-	0.167J-
Chloride (As Cl)	250	mg/l	8.92	22.0	22.0	21.4	20.4	19.1	22.1	21.5	21.3	21.1	21.4	12.8
Fluoride	1.5	mg/l	0.05U	0.065	0.062	0.057	0.077	0.045J	0.049J	0.05U	0.055	0.107	0.082	0.05U
Iodide	NS	mg/l	0.5U	0.5U	0.5U	0.5U	0.27J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U
Nitrogen, Ammonia (As N)	2	mg/l	0.075U	0.14J	0.202J	0.622J	1.22J	0.042J	0.03J	0.083J	0.075U	0.142J	0.154J	0.137J
Nitrogen, Kjeldahl, Total	NS	mg/l	0.085J	0.19J	0.184J	0.566J	1.15J	0.128J	0.136J	0.3U	0.3U	0.668J	0.428J	0.106J
Nitrogen, Nitrate-Nitrite	10	mg/l	0.099J	0.1U	0.1U	0.1U	0.1U	0.14	0.1U	0.9	0.2	0.073J	0.55	5.3
Total Nitrogen, All Forms (As N)	10	mg/l	0.3U	0.3U	0.3U	0.57	1.2	0.3U	0.3U	0.9	0.3U	0.67	0.98	5.3
Phosphorus	NS	mg/l	0.028J	0.107	0.107	0.031	0.08	0.055	0.11	0.043	0.040	0.04	0.101	0.018J
Sulfate (As SO ₄)	250	mg/l	5.11	14.1	14.1	21.6	12.8	16.2	11.4	23.4	17.4	22.4	21.6	19.2
Sulfide	0.05	mg/l	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ	2UJ
Total Dissolved Solids	NS	mg/l	80.0	150	140	180	320	140	160	160	110	120	130	140

Notes:

- All concentrations reported in milligrams per liter (mg/L), which is approximately equivalent to parts per million (ppm).
- NYS Water Quality Standards and Guidance Values, Class GA, TOGS 1.1.1
- "NS" indicates no ground water standard has been established.
- "U" indicates not detected at the indicated quantitation reporting limit (RL).
- Shaded cells indicate the value exceeds the NYS Water Quality Standard.

TABLE 4
Radionuclides in Ground Water Analytical Results
Fourth Quarter 2024
Sparrow Mining of Suffolk, LLC, Manorville, New York

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6AR (Duplicate)	Well 6BR	Well 9B	Equip. Blank
			11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024
Radium-226	5	pci/l	ND (-0.373 ± 0.788)	ND (-0.191 ± 0.624)	ND (-0.329 ± 0.563)	ND (-0.132 ± 0.795)	ND (-0.0862 ± 0.463)	ND (-0.332 ± 0.598)
Radium-228			0.486 ± 0.312	0.710 ± 0.397	1.33 ± 0.461	0.625 ± 0.412	ND (0.218 ± 0.300)	2.76 ± 0.694
Thorium-228	15	pci/l	ND (0 ± 279.830)	ND (152.18 ± 450.110)	ND (0 ± 236.710)	ND (0 ± 299.270)	ND (354.41 ± 411.160)	ND (0 ± 286.930)
Thorium-230			ND (-447.45 ± 1869.400)	ND (-214 ± 2546.800)	ND (-1175.7 ± 4265.900)	ND (2413.4 ± 2923.900)	ND (-353.25 ± 1679.400)	ND (-1369.6 ± 3511.400)
Thorium-232			ND (42.768 ± 1880.600)	ND (2511.2 ± 5641.200)	ND (0 ± 3798.700)	ND (1819.5 ± 15230.000)	ND (980.3 ± 1971.300)	ND (1293.6 ± 5699.400)
Uranium-238	30	ug/l	ND <0.085	ND <0.085	ND <0.085	0.32J	ND <0.085	ND <0.085

Notes:

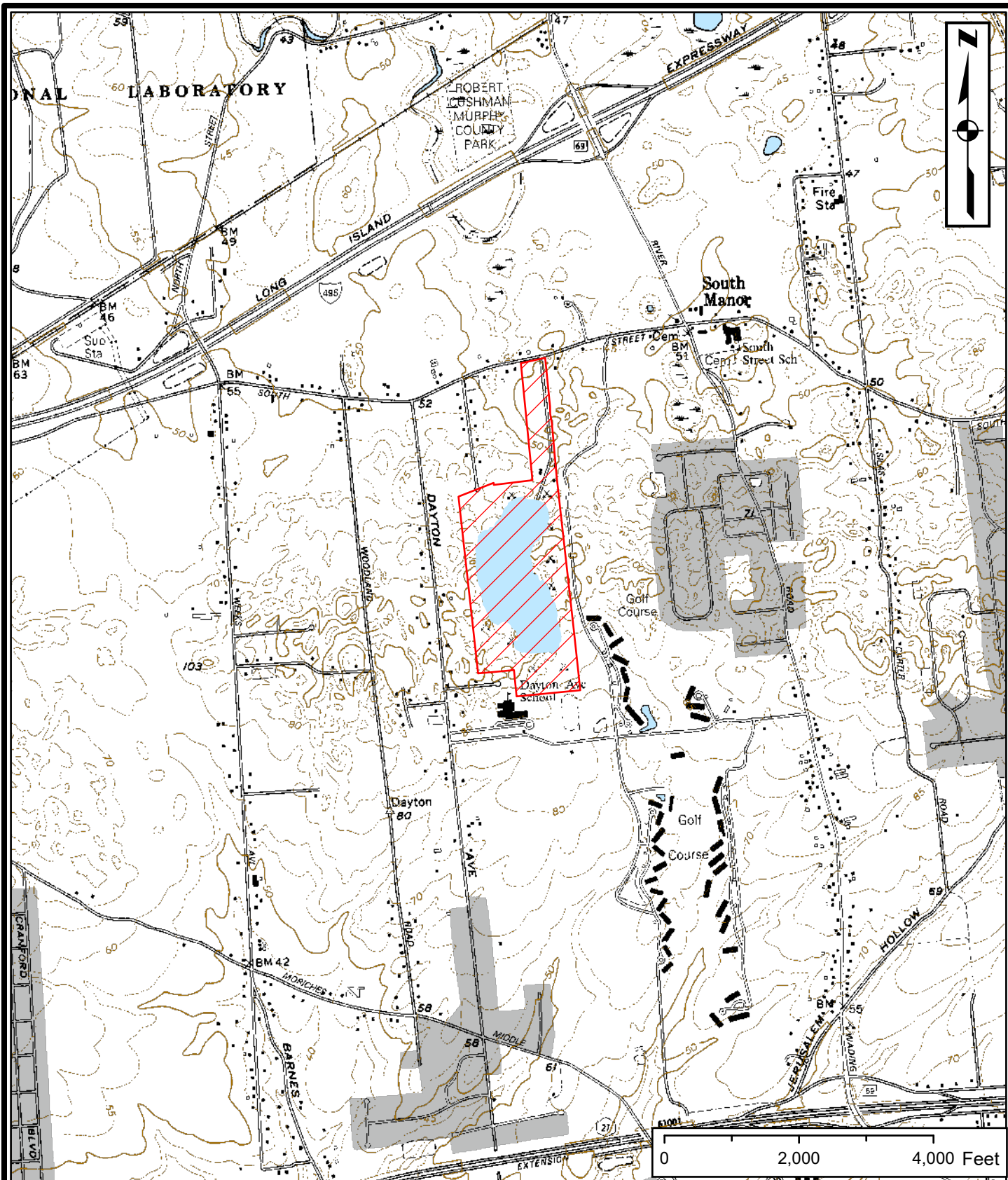
- Concentration for uranium is reported in micrograms per liter (µg/L), which is approximately equivalent to parts per billion (ppb). Concentrations for radium and thorium isotopes are reported in picocuries per liter (pci/L), which is a measure of the rate of radioactive decay.
- NYS Water Quality Standards and Guidance Values, Class GA, TOGS 1.1.1. The standard for Radium 226 is 3 pci/L, or 5 pci/L for the sum of Ra-226 and Ra-228.
- NYSDOH Maximum Contaminant Level (MCL) for uranium is 30 ug/L
- "NS" indicates no ground water standard has been established for thorium isotopes. The guidance value for total gross alpha is 15 pci/L
- ± indicates the reported expanded uncertainty (aka Combined Standard Uncertainty, CSU), reported at the 95% confidence interval using a coverage factor of 1.96.
- "ND" indicates that analyte was not detected at a level significantly greater than 95% confidence interval.

TABLE 5
Emerging Contaminants in Ground Water Analytical Results
Fourth Quarter 2024
Sparrow Mining of Suffolk, LLC, Manorville, New York

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6AR (Duplicate)	Well 6BR	Well 9B	Equip. Blank	Field Blank
			11/19/2024	11/20/2024	11/20/2024	11/20/2024	11/19/2024	11/19/2024	11/19/2024
1,4-Dioxane									
1,4-Dioxane (P-Dioxane)	350	ng/l	150U	139U	139U	139U	139U	150U	144U
Per- and Polyfluoroalkyl Substances (PFAS)									
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF30UdS)	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2Fts)	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)	NS	ng/l	37.2U	40.4U	38.4U	36.9U	37.1U	37.5U	37.8U
3-Perfluoroheptyl propanoic acid (7:3FTCA)	NS	ng/l	37.2U	40.4U	38.4U	36.9U	37.1U	37.5U	37.8U
3-Perfluoropropyl propanoic acid (3:3 FTCA)	NS	ng/l	7.44U	8.08U	7.69U	7.38U	7.41U	7.49U	7.56U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid (9Cl-PF3ONS)	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	ng/l	5.96U	6.46U	6.15U	5.9U	5.93U	6U	6.05U
N-ethyl perfluorooctanesulfonamide (NETFOSA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
N-ethyl perfluorooctanesulfonamidoacetic acid (NETFOSAA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
N-ethyl perfluorooctanesulfonamidoethanol (NETFOSE)	NS	ng/l	14.9U	16.2U	15.4U	14.8U	14.8U	15U	15.1U
N-methyl perfluorooctanesulfonamide (NMeFOSA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
N-methyl perfluorooctanesulfonamidoethanol (NMeFOSE)	NS	ng/l	14.9U	16.2U	15.4U	14.8U	14.8U	15U	15.1U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	ng/l	2.98U	3.23U	3.08U	2.95U	2.96U	3U	3.02U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	NS	ng/l	2.98U	3.23U	3.08U	2.95U	2.96U	3U	3.02U
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	ng/l	2.98U	3.23U	3.08U	2.95U	2.96U	3U	3.02U
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	ng/l	2.98U	3.23U	3.08U	2.95U	2.96U	3U	3.02U
Perfluorobutanesulfonic acid (PFBS)	NS	ng/l	1.49U	0.889J	0.777J	0.664J	1.48U	1.5U	1.51U
Perfluorobutanoic Acid	NS	ng/l	5.96U	3.18J	3.22J	3.31J	17.2	6U	6.05U
Perfluorodecanesulfonic acid (PFDS)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluorodecanoic acid (PFDA)	NS	ng/l	1.49U	0.436J	0.415J	0.576J	1.48U	1.5U	1.51U
Perfluorododecanesulfonic acid (PFDoS)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluorododecanoic acid (PFDoA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluoroheptanesulfonic acid (PFHpS)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluoroheptanoic acid (PFHpA)	NS	ng/l	1.49U	0.937J	0.738J	0.384J	0.549J	1.5U	1.51U
Perfluorohexanesulfonic acid (PFHxS)	NS	ng/l	1.49U	0.752J	0.677J	0.568J	0.222J	1.5U	1.51U
Perfluorohexanoic acid (PFHxA)	NS	ng/l	1.49U	1.24J	1.24J	0.524J	1.48U	1.5U	1.51U
Perfluorononanesulfonic Acid (PFNS)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluorononanoic acid (PFNA)	NS	ng/l	1.49U	0.808J	0.692J	1.12J	1.48U	1.5U	1.51U
Perfluorooctane Sulfonamide (PFOSA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	0.782J	2.31	2.02	2.81	0.534J	1.5U	1.51U
Perfluorooctanoic acid (PFOA)	6.7	ng/l	1.49U	3.96	4.12	4.17	4.43	1.5U	1.51U
Perfluoropentanesulfonic Acid (PFPeS)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluoropentanoic Acid (PFPeA)	NS	ng/l	2.98U	1.64J	1.48J	0.893J	2.96U	3U	3.02U
Perfluorotetradecanoic acid (PFTeDA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluorotridecanoic Acid (PFTriA/PFTTrDA)	NS	ng/l	1.49U	1.62U	1.54U	1.48U	1.48U	1.5U	1.51U
Perfluoroundecanoic Acid (PFUnA)	NS	ng/l	1.49U	1.62U	0.231J	0.288J	1.48U	1.5U	1.51U

Notes:

- Concentrations reported in micrograms per liter (µg/L), which is approximately equivalent to parts per billion (ppb) or in nanograms per liter (ng/L), which is approximately equivalent to parts per trillion (ppt).
- NYS Water Quality Standards and Guidance Values, Class GA, TOGS 1.1.1
- "NS" indicates no ground water standard has been established.
- "U" indicates not detected at the indicated quantitation reporting limit (RL).
- Shaded cells indicate the value exceeds the NYS Water Quality Standard.

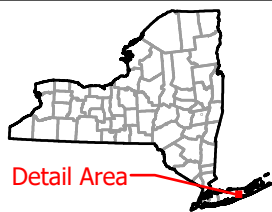


LEGEND

 Site Boundary (approx.)

Source:

- NYS DOT 7.5-minute topographic map (Moriches quadrangles)
- Elevations are shown in feet above mean sea level.
- Contour interval is 10 feet.



Proj. No. 12123

FIGURE 1
Site Location Map

Sparrow Mining of Suffolk, LLC
Town of Brookhaven
Suffolk County, New York

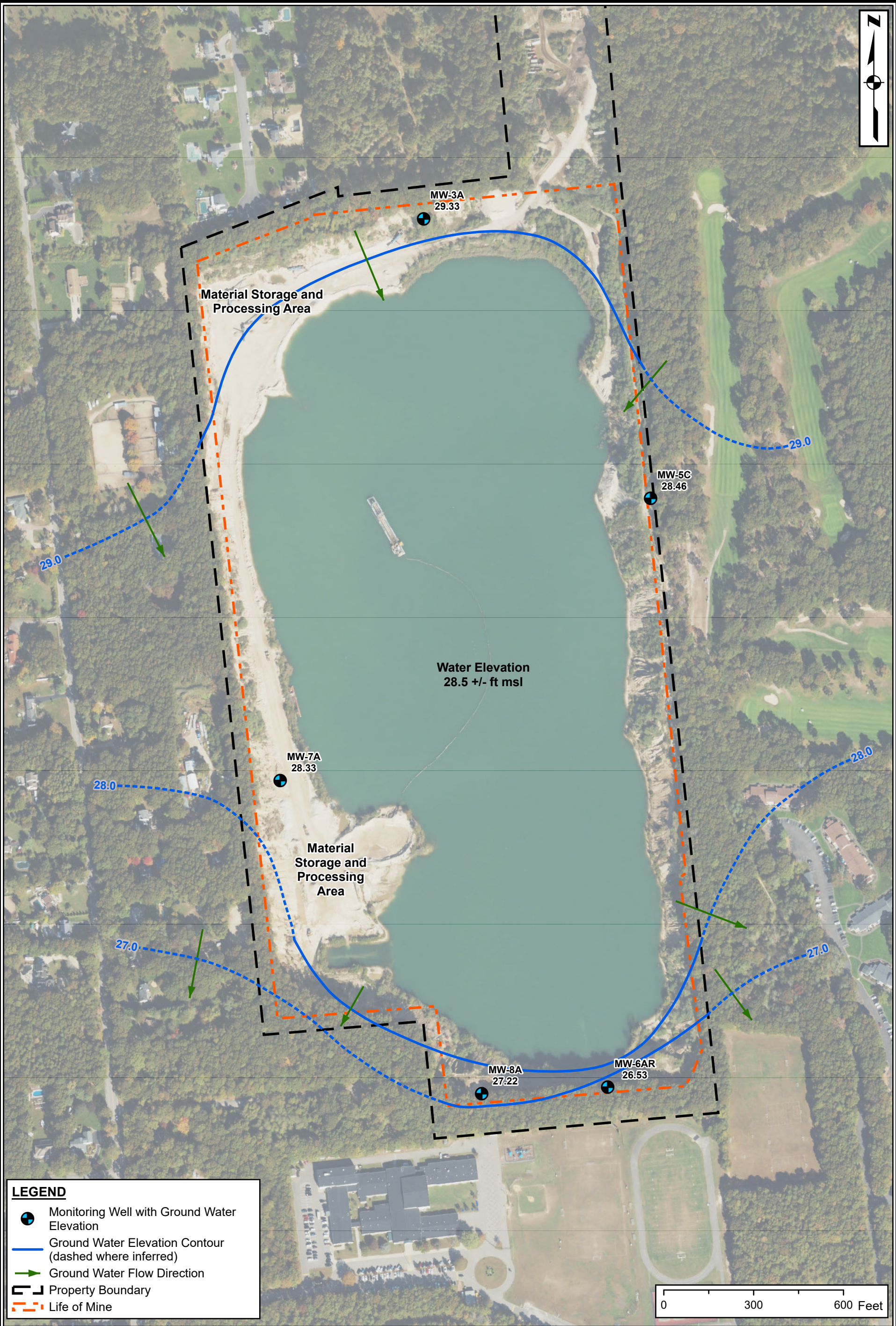


Notes:

- Property boundary, and life of mine are approximate and based on the May 2012 Revised Mining Plan by Harrington Associates.
- Well Locations to be surveyed in July 2024
- Orthoimage (2022) provided by Strategic Mining Solutions from a November 15, 2022 drone survey.



FIGURE 2
Well Location Map and
Mining Activity
November 2024
Sparrow Mining of Suffolk, LLC
Town of Brookhaven
Suffolk County, New York



Notes:
-Elevations are in feet above mean sea level (ft msl) relative to the North American Vertical Datum of 1988 (NAVD 88).
-Ground water contours based on shallow monitoring well (A) water elevation.
-Property boundary, and life of mine are approximate and based on the May 2012 Revised Mining Plan by Harrington Associates.
-Well Clusters 6, 7, 8, and 9 surveyed in July 2024 by John Gallacher PLS.
-Orthoimage (2022) provided by Strategic Mining Solutions from a November 15, 2022 drone survey.

Path: Z:\projects\2012\12121 - 12140\12123 - Ranco\GIS\2024-Q4_Sampling_Report.aprx: GWE Map 2024-11-19-A Wells
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**ALPHA
GEOSCIENCE**
Proj. No. 12123

FIGURE 3
Ground Water Elevation
Map - November 19, 2024
Shallow Wells
Sparrow Mining of Suffolk, LLC
Town of Brookhaven
Suffolk County, New York



APPENDIX A

Field Sampling Forms



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-3A
DATE 11/19/24
Page 1 of 1

GENERAL

Weather Conditions Sunny 60s
Site Access/Conditions Walk in, no vehicle access
Physical Condition of Well OK - no lock

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 52.6 feet
Depth to water surface before purging (from top of casing): (Avg) 42.90 feet
Height of water column: (DTW (6/2024)) (a) #VALUE! feet
Screen length (b) 13.9 feet
Lesser of a and b #VALUE! feet
 $d^2 \times 0.0408$ 0.65 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

Well diameter (d): 4 inches

One wetted screen volume before purging (1 gallon = 3.785 liters): 6.3 gallons or #VALUE! liters

Volume of water equal to five wetted screen volumes: 31.5 gallons or #VALUE! liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
1437	<u>pump on</u>	<u>42.90</u>	<u>0.071</u>	<u>12.29</u>	<u>5.51</u>	<u>10.20</u>	<u>329</u>	<u>0.0</u>
1445	<u>3</u>	<u>42.96</u>	<u>0.070</u>	<u>12.27</u>	<u>5.63</u>	<u>9.94</u>	<u>324</u>	<u>0.0</u>
1450	<u>5</u>	<u>42.90</u>	<u>0.070</u>	<u>12.21</u>	<u>5.62</u>	<u>9.87</u>	<u>327</u>	<u>0.0</u>
1455	<u>7</u>	<u>42.90</u>	<u>0.070</u>	<u>12.21</u>	<u>5.62</u>	<u>9.87</u>	<u>327</u>	<u>0.0</u>
1500	<u>9</u>	<u>42.90</u>	<u>0.070</u>	<u>12.23</u>	<u>5.68</u>	<u>9.71</u>	<u>326</u>	<u>0.0</u>
1505	<u>10</u>	<u>42.90</u>	<u>0.070</u>	<u>12.24</u>	<u>5.88</u>	<u>9.72</u>	<u>329</u>	<u>0.0</u>
1510	<u>13</u>	<u>42.90</u>	<u>0.069</u>	<u>12.20</u>	<u>5.60</u>	<u>9.64</u>	<u>327</u>	<u>0.0</u>

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 47 gallons/liters

Depth of pump intake: 47 feet btoc

OBSERVATIONS

Color clear Odor none
Turbidity none Sheen none
Presence of NAPL none Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel S. Hulseapple, N. Stapley
Sampling Method Low-Flow
Sample Date 11/19/24 Time 1510
Sample Description _____
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-6ADATE 11/20/24
Page 1 of 1

GENERAL

Weather Conditions cloudy SDs
Site Access/Conditions Good
Physical Condition of Well No lock, put lock from 9B on and informed owner

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing):
Depth to water surface before purging (from top of casing): (Avg)
Height of water column: (DTW (6/2024))
Screen length

75.8 feet 75.65 TD
52.7 feet
(a) 23.1 feet
(b) 20.0 feet
Lesser of a and b 20.0 feet
 $d^2 \times 0.0408$ 0.16 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft
6" Diam. = 1.47 gal/ft.

Well diameter (d): 2 inches

One wetted screen volume before purging (1 gallon = 3.785 liters):
Volume of water equal to five wetted screen volumes:

3.3 gallons or 12.4 liters
16.3 gallons or 61.8 liters

Pump Type: SubmersibleWQ Meter Type: Horiba (Pine Rental)

FAD 37.81

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
739		54.61						
750		54.61	0.248	20.56	7.24	0.0	137	28
752	4	54.61	0.248	20.57	7.26	0.0	134	60.1
800	6	54.61	0.247	20.53	7.25	0.0	122	46.4
805	8	54.62	0.248	20.64	7.21	0.0	119	31.4
816	9	54.62	0.247	20.62	7.21	0.0	114	14.8
820	13	54.62	0.247	20.63	7.18	0.0	111	0.0
825	15	54.62	0.247	20.61	7.18	0.0	113	0.0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 15 gallons/liters
Depth of pump intake: 65.8 feet btoc ✓

OBSERVATIONS

Color gray brown - then clear Odor none
Turbidity cloudy then clear Sheen none
Presence of NAPL none Other none
Remarks Temperature was notably warmer - checked pump - not over heat

SAMPLING INFORMATION

Field Personnel S. Hulseapple / N. Stapley
Sampling Method Low-Flow
Sample Date 11/20/24 Time 825 - 845
Sample Description Duplicate collected
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pesticides, PFAS, RAD, 14 Dioxane



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-7A
DATE 11/19/24
Page 1 of 1

GENERAL

Weather Conditions Sunny SOS
Site Access/Conditions good
Physical Condition of Well good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 42.8 feet
Depth to water surface before purging (from top of casing): (Avg) 21.5 feet
Height of water column: (DTW (6/2024)) (a) 21.3 feet
Screen length (b) 20.0 feet
Lesser of a and b 20.0 feet
 $d^2 \times 0.0408$ 0.65 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

Well diameter (d): 4 inches
One wetted screen volume before purging (1 gallon = 3.785 liters): 13.1 gallons or 49.4 liters
Volume of water equal to five wetted screen volumes: 65.3 gallons or 247.1 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
12:23	Start	23.69	0.204	15.39	5.98	3.81	237	0.0
12:30	3.5g	23.69	0.209	15.20	6.30	0.47	187	0.0
12:35	7.0g	23.69	0.212	15.07	6.35	0.17	185	0.0
12:40	10.5g	23.69	0.213	15.01	6.35	0.13	182	0.0
12:45	17.0g	23.69	0.212	15.01	6.38	0.17	181	0.0
12:50	21.5g	23.69	0.211	15.04	6.42	0.25	175	0.0
12:53	24.0g	23.69	0.211	15.03	6.44	0.27	171	0.0
12:56	26.5g	23.69	0.211	15.03	6.45	0.34	168	0.0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 26.5 gallons/liters
Depth of pump intake: 32.8 feet btoc

OBSERVATIONS

Color clear Odor none
Turbidity low - clear Sheen none
Presence of NAPL none Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel EA, WB
Sampling Method Low-Flow
Sample Date 11/19/24 Time 12:56
Sample Description _____
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-7B
DATE 11/19/24
Page 1 of 1

GENERAL

Weather Conditions Sunny SDS
Site Access/Conditions good
Physical Condition of Well good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 67.9 feet
Depth to water surface before purging (from top of casing): (Avg) 21.7 feet
Height of water column: (DTW (6/2024)) (a) 46.2 feet
Screen length (b) 20.0 feet
Lesser of a and b 20.0 feet
Well diameter (d): 4 inches $d^2 \times 0.0408$ 0.65 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

One wetted screen volume before purging (1 gallon = 3.785 liters): 13.1 gallons or 49.4 liters
Volume of water equal to five wetted screen volumes: 65.3 gallons or 247.1 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
13:10	Start	23.85	0.254	12.93	6.72	4.3	154	14.7
13:23	5 gal	23.44	0.254	12.94	6.72	0.0	97	24.2
13:28	10 gal	23.93	0.254	13.06	6.80	0.0	111	9.3
13:33	15 gal	23.93	0.252	13.10	6.61	0.0	106	2.9
13:38	20 gal	23.93	0.252	13.09	6.65	0.0	105	16.8
13:43	24.5 gal	23.93	0.253	13.10	6.67	0.0	105	15.0
13:48	30 gal	23.93	0.253	13.08	6.7	0.0	104	9.0
13:53	35 gal	23.93	0.252	13.08	6.75	0.0	102	4.1
13:56	37.5 gal	23.93	0.253	13.08	6.76	0.0	101	2.4
17:54	40 gal	23.93	0.253	13.68	6.77	0.0	102	1.9

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 40 gallons/liters
Depth of pump intake: 57.9 feet btoc

OBSERVATIONS

Color Clear Odor none
Turbidity low Sheen none
Presence of NAPL none Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel CR, VB
Sampling Method Low-Flow
Sample Date 11/19/24 Time 14:00
Sample Description _____
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-7C
DATE 11/19/24
Page 1 of 1

GENERAL

Weather Conditions Sunny 50s
Site Access/Conditions Good
Physical Condition of Well Good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 107.6 feet
Depth to water surface before purging (from top of casing): (Avg) 22.1 feet
Height of water column: (DTW (6/2024)) (a) 85.6 feet
Screen length (b) 20.0 feet
Lesser of a and b 20.0 feet
Well diameter (d): 4 inches $d^2 \times 0.0408$ 0.65 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

One wetted screen volume before purging (1 gallon = 3.785 liters): 13.1 gallons or 49.4 liters
Volume of water equal to five wetted screen volumes: 65.3 gallons or 247.1 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
14:25	Start	24.15	0.223	13.81	7.05	14.82	138	0.0
14:30	5g	24.18	0.229	11.99	6.65	0.50	127	0.0
14:35	9g	24.18	0.229	11.98	6.60	0.25	133	0.0
14:40	14g	24.18	0.229	11.98	6.54	0.16	138	0.0
14:45	17.5g	24.18	0.231	11.96	6.61	0.0	140	0.0
14:48	20g	24.18	0.232	11.95	6.61	0.0	143	0.0
14:51	24g	24.18	0.234	11.95	6.62	0.0	144	0.0
14:54	26g	24.18	0.235	11.94	6.63	0.0	145	0.0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 26 gallons/liters
Depth of pump intake: 97.6 feet btoe

OBSERVATIONS

Color Clear Odor None
Turbidity low - clear Sheen None
Presence of NAPL None Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel EP, WBS
Sampling Method Low-Flow
Sample Date 11/19/24 Time 14:55
Sample Description _____
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-8A
DATE 11/20/24
Page 1 of 1

GENERAL

Weather Conditions Partly Cloudy 50s
Site Access/Conditions good
Physical Condition of Well good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 73.8 feet
Depth to water surface before purging (from top of casing): (Avg) 63.6 feet
Height of water column: (DTW (6/2024)) 8.27 (a) 10.2 feet
Screen length (b) 20.0 feet
8.27 Lesser of a and b 10.2 feet
 $d^2 \times 0.0408$ 0.16 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

Well diameter (d): 2 inches

One wetted screen volume before purging (1 gallon = 3.785 liters): 1.32 gallons or 6.3 liters
Volume of water equal to five wetted screen volumes: 6.6 gallons or 31.3 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
7:50	Start	65.53	0.273	14.28	7.58	3.66	27	11.5
7:56	1.5g	65.57	0.252	18.13	6.72	2.54	49	29.6
8:00	2.5g	65.56	0.252	17.88	6.68	2.11	53	9.6
8:05	3.0	65.56	0.250	17.75	6.67	2.20	54	9.2
8:10	3.5	65.56	0.250	17.84	6.66	2.27	51	15.7
8:15	4.0	65.56	0.248	18.71	6.65	2.50	45	2.2
8:18	4.3	65.56	0.248	18.69	6.65	2.40	48	0.0
8:21	4.8	65.56	0.248	18.60	6.67	2.85	52	0.0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 4.8 gallons/liters
Depth of pump intake: 68.7 feet btlc

OBSERVATIONS

Color clear to slightly cloudy Odor none
Turbidity slightly cloudy Sheen none
Presence of NAPL none Other _____
Remarks No plug cap on well PVC

SAMPLING INFORMATION

Field Personnel WB, ER
Sampling Method Low-Flow
Sample Date 11/20/24 Time 8:21
Sample Description _____
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-8B
DATE 11/20/24
Page 1 of 1

GENERAL

Weather Conditions Sunny 50s
Site Access/Conditions good
Physical Condition of Well good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 120.5 feet
Depth to water surface before purging (from top of casing): (Avg) 64.2 feet
Height of water column: (DTW (6/2024)) (a) 56.3 feet
Screen length (b) 20.0 feet
Lesser of a and b 20.0 feet
Well diameter (d): 2 inches $d^2 \times 0.0408$ 0.16 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

One wetted screen volume before purging (1 gallon = 3.785 liters): 3.3 gallons or 12.4 liters
Volume of water equal to five wetted screen volumes: 16.3 gallons or 61.8 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/ Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
10:12	Start	66.15	0.251	14.59	7.55	9.15	101	0.0
10:18	1.5g	66.19	0.258	14.06	7.49	2.51	91	0.0
10:23	2.5g	66.20	0.259	14.13	7.54	1.14	80	0.0
10:28	3.8g	66.20	0.259	13.99	7.55	0.49	75	0.0
10:33	5.5g	66.20	0.260	13.97	7.55	0.02	70	0.0
10:37	6.5g	66.20	0.260	14.07	7.55	0.0	67	0.0
10:40	7.1g	66.20	0.260	14.05	7.56	0.0	64	0.0
10:43	7.6g	66.20	0.260	13.98	7.56	0.0	62	0.0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 7.6 gallons/liters
Depth of pump intake: 110.5 feet btoc

OBSERVATIONS

Color Clear Odor none
Turbidity low-clear Sheen none
Presence of NAPL none Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel WB, ER
Sampling Method Low-Flow
Sample Date 11/20/24 Time 10:43
Sample Description MW-8B grab
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-8C2
DATE 11/20/24
Page 1 of 1

GENERAL

Weather Conditions Partly Cloudy 50s
Site Access/Conditions good
Physical Condition of Well good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 140.3 feet
Depth to water surface before purging (from top of casing): (Avg) 64.3 feet
Height of water column: (DTW (6/2024)) (a) 76.0 feet
Screen length (b) 20.0 feet
Lesser of a and b 20.0 feet
Well diameter (d): 2 inches $d^2 \times 0.0408$ 0.16 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

One wetted screen volume before purging (1 gallon = 3.785 liters): 3.3 gallons or 12.4 liters
Volume of water equal to five wetted screen volumes: 16.3 gallons or 61.8 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
9:00	Start	66.31	0.268	14.48	7.11	0.0	123	0.0
9:05	1 gal	66.34	0.276	13.94	7.31	0.0	114	15.3
9:10	3 gal	66.34	0.240	13.69	7.46	0.0	101	6.0
9:15	5 gal	66.34	0.286	13.63	7.48	0.0	91	0.0
9:20	7 gal	66.34	0.287	13.69	7.50	0.0	77	0.0
9:26	8.5 gal	66.34	0.288	13.55	7.51	0.0	70	0.0
9:31	10.5 gal	66.34	0.288	13.54	7.52	0.0	62	0.0
9:34	12.5 gal	66.34	0.289	13.41	7.52	0.0	56	0.0
9:37	13.5 gal	66.34	0.288	13.43		0.0	54	0.0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 13.5 gallons/liters
Depth of pump intake: 130.3 feet btoc

OBSERVATIONS

Color Clear Odor none
Turbidity low Sheen none
Presence of NAPL none Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel WB, BR
Sampling Method Low-Flow
Sample Date 11/20/24 Time 9:37
Sample Description MW-8C2
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides



LOW-FLOW GROUND WATER SAMPLING RECORD

Alpha Geoscience
679 Plank Road
Clifton Park, New York 12065

PROJECT NAME Ranco
PROJECT NUMBER 12123
SITE LOCATION Manorville, New York

WELL ID MW-9B
DATE 11/19/24

Page 1 of 1

GENERAL

Weather Conditions Sunny upper SPS
Site Access/Conditions Good
Physical Condition of Well Good

MS/MSD

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 139.8 feet
Depth to water surface before purging (from top of casing): (Avg) 29.8 feet
Height of water column: (DTW (6/2024)) 110.0 feet
Screen length 20.0 feet

Lesser of a and b 20.0 feet
 $d^2 \times 0.0408$ 0.16 gal/ft

WELL VOLUMES:
2" Diam. = 0.16 gal/ft
4" Diam. = 0.65 gal/ft.
6" Diam. = 1.47 gal/ft.

One wetted screen volume before purging (1 gallon = 3.785 liters): 3.3 gallons or 12.4 liters
Volume of water equal to five wetted screen volumes: 16.3 gallons or 61.8 liters

Pump Type: Submersible

WQ Meter Type: Horiba (Pine Rental)

Time	Volume Purged (Gallons/Liters)	Depth to Water (feet)	SC (mmhos/cm or umhos/cm)	Temp. (°C or °F)	pH (SU)	Dissolved Oxygen (mg/L)	RedOx Potential (mV)	Turbidity (NTU)
Stabilization Criteria*		Drawdown <0.3 ft	+/- 3%	+/- 0.2 °C	+/- 0.1 SU	+/- 10% or <0.5	+/- 10 mV	+/- 10% or <5
11:58	Pump on	32.52						
12:10	7	32.64	0.161	11.50	5.52	2.06	302	0
12:15	12	32.61	0.161	11.54	5.58	1.90	312	0
12:20	14	32.61	0.161	11.52	5.57	1.82	319	0
12:25	16	32.61	0.162	11.55	5.56	1.73	325	0
12:30	18	32.61	0.162	11.54	5.57	1.70	329	0
12:35	21	32.61	0.162	11.55	5.53	1.62	334	0
12:40	24	32.61	0.162	11.52	5.52	1.60	337	0

* - Stabilization based on three consecutive readings collected at 3 to 5 minute intervals. Minimum of 30 minutes of purging, maximum of five wetted screen volumes.

Total Volume of Water Purged: 12.5 gallons/liters
Depth of pump intake: 429.8 feet btoc

OBSERVATIONS

Color Clear Odor None
Turbidity None Sheen None
Presence of NAPL None Other
Remarks

SAMPLING INFORMATION

Field Personnel S. Hulseapple, N. Staphley
Sampling Method Low-Flow
Sample Date 11/19/24 Time 12:40 MS/MSD also
Sample Description Clear
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides, PFAS, 14Dioxin, Rod

Forms\Field Forms\Field Forms-Huntington\Water Levels



ALPHA GEOSCIENCE
679 Plank Road
Clifton Park, NY 12065
DAILY FIELD LOG

Page 1 of 1

Project No: 12123

Day: Tuesday Date: 11/12/21

Project Name: Ranco

Work Period: _____

Weather: Sunny 50-60

Completed by: SH

Alpha Personnel On Site: S. Hulsropp, N. Staple, W. Barbone, E. Rattley

Contractor On Site: _____

Others On Site: Matt Metz (owner)

Description of Activities:

ER/WB on-site to conduct bathymetric survey early; SH/NS finish at Huntington
11:00 SH/NS on-site at MW-9B; NS to get water labels; SH starts up on MW-9B
12:00 Start purge MW-9B/WB/ER To MW-7 cluster to purge + sample; NS to MW C+8 cluster
12:40 Sample MW-9B + MS/MSD
1330 Courier
1335 Prepared field blank with lab provided DI water
PFAS free water + VOC free water, respectively
1352 Prepared equipment blank with lab water & submersible pump used at ER&F
Huntington + at MW-9B/3A. A few trucks drove by when preparing blanks
Kicking up dust. Wanted for dust to settle when possible
1400 moved to MW-3A; No vehicle access; HDPE tubing
1437-1510 purge MW-3A
1510-1525 sample MW-3A; ER/WB finished sample 1 cluster
1545: 11:30 Surveyed lake level from 7A toe to lake to estimate elevation
1645 All off-site

Alpha Equipment On-site: 2 X Submersibles; WL notes; north D Hachas

Contractor Equipment On-site: _____

Signature: [Signature]

Date: 11/12/21



ALPHA GEOSCIENCE

679 Plank Road
Clifton Park, NY 12065
DAILY FIELD LOG

Project No: 12123Day: Wed Date: 11/20/24Project Name: Ramco

Work Period: _____

Weather: Cloudy SOs Completed by: S. Huls-scapplAlpha Personnel On Site: S. Huls-scappl; M. Stapley; E. Rafferty; W. Buckner

Contractor On Site: _____

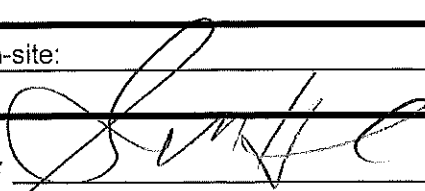
Others On Site: _____

Description of Activities:

7:40 All on site; SH/OR calibrates Hor. bars; EP/WB to 8' cluster to sample + SH/NS
 7:39-8:25 purge 6AR (Duplicate) HDPE tubing
 8:25-8:45 collected 6AR sample; Duplicate collected; temperature was notably warmer at 6AR (20.5°C/69°F). was not the pump overheating
 9:05-9:40 Purge 6BR (HDPE tubing) Temperature was "normal" ~12.5°C/54.5°F
 9:40-9:50 Sample 6BR - last well on-site for PFAS
 10:08-10:45 Purge 6CR (LDPE); Temperature ~11.8°C/53.2°F
 10:45-10:50 Sampled 6CR
 11:08 Finished pick up & locking wells; WB/OR also done at 8 cluster
 11:20 All off-site to CAA

Alpha Equipment On-site: _____

Contractor Equipment On-site: _____

Signature: Date: 11/20/24



Horiba Field Calibration Record

ALPHA GEOSCIENCE
679 Plank Road
Clifton Park, NY 12065

Project Name: Huntington Ready Mixed & Ready

Project No. 20116 12123

Date: 11/19/24

Field Personnel: S. Hu / scap pl

Equipment ID: FA03781

Model No.: U52

Last Lab Calibration Date: 11/14/24

Air Temperature (deg C): 46°F

Barometric Pressure (mmHg): 29.9"

Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)	Temp (°C)
0	14.60	11	11.01	22
1	14.19	12	10.76	23
2	13.81	13	10.52	24
3	13.44	14	10.29	25
4	13.09	15	10.07	26
5	12.75	16	9.85	27
6	12.43	17	9.65	28
7	12.12	18	9.45	29
8	11.83	19	9.26	30
9	11.55	20	9.07	31
10	11.27	21	8.90	32

Barometric correction factor
CF = Barometric Pressure in mmHg/760

Date: 11/19/24

Time: 720

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH (+/- 0.1)	SU	4.0	4.04	3.96	Y	
Conductivity (+/- 0.2)	mS/cm	4.49	4.60	4.59	Y	
Turbidity (<0.1)	NTU	0	0.0	0.0	Y	
D.O. Sat* (+/- 0.2)	ppm	11.83	11.16	11.16	Y	
D.O. Zero (<0.1)	ppm	0	0	0	Y	

Equipment ID: FA02666

Model No.: U52

Last Lab Calibration Date: 11/14/24

Air Temperature (deg C): 46°F / 8°C

Barometric Pressure (mmHg): 29.9" 1759 mm

Date: 11/19/24

Time: 720

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH	SU	4.0	~~3.96~~ 3.96	4.00	Y	
Conductivity	mS/cm	4.49	~~4.60~~ 4.64	4.56	Y	
Turbidity	NTU	0	0	0	Y	
D.O. Sat*	ppm	11.83	11.24	12.2	Y	
D.O. Zero	ppm	0	0	0	Y	



Horiba Field Calibration Record

ALPHA GEOSCIENCE
679 Plank Road
Clifton Park, NY 12065

Project Name: Ranco

Project No. 12123

Date: 11/20/24

Field Personnel: SH, WB, ER, NS

Equipment ID: FA03781

Model No.: Horiba U-52

Last Lab Calibration Date: 11/14/24

Air Temperature (deg C): 43°F

Barometric Pressure (mmHg):

Temp (°C)	DO (mg/L)	Temp (°C)	DO (mg/L)	Temp (°C)
0	14.60	11	11.01	22
1	14.18	12	10.76	23
2	13.81	13	10.52	24
3	13.44	14	10.29	25
4	13.09	15	10.07	26
5	12.75	16	9.85	27
6	12.43	17	9.65	28
7	12.12	18	9.45	29
8	11.83	19	9.26	30
9	11.55	20	9.07	31
10	11.27	21	8.90	32

Barometric correction factor

CF = Barometric Pressure in mmHg/760

Date: 11/20/24

Time: 7:10

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH (+/- 0.1)	SU	4.0	3.97	4.00	Y	
Conductivity (+/- 0.2)	mS/cm	4.49	4.54	4.55	Y	
Turbidity (<0.1)	NTU	0	1.2	0.0	Y	
D.O. Sat* (+/- 0.2)	ppm	11.27		11.89	Y	
D.O. Zero (<0.1)	ppm	0		0.0	Y	

Equipment ID: FA02666

Model No.: Horiba U52

Last Lab Calibration Date: 11/14/24

Air Temperature (deg C): 43°F

Barometric Pressure (mmHg):

Date: 11/20/24

Time: 7:12

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH	SU	4.0	4.17	4.0		
Conductivity	mS/cm	4.49	4.56	4.56		
Turbidity	NTU	0	7.3	0.0		
D.O. Sat*	ppm	11.27				
D.O. Zero	ppm	0		0.0		

APPENDIX B

Laboratory Summary Reports



Geology

Hydrology

Remediation

Water Supply

**Data Usability Summary Report
for Alpha Analytical Labs
SDG Number: L2468567**

**11 Ground Water Samples, 1 Field Duplicate,
1 Field Blank, 1 Equipment Blank, and 1 Trip Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

The data package contained the documentation as required by NYSDEC ASP. The proper chain of custody procedures were followed by the samplers. All information appeared legible and complete. The data pack contained the results of volatile analyses for 11 ground water samples, 1 field duplicate, 1 field blank, 1 equipment blank, and 1 trip blank; the results of semi-volatile, SIM semi-volatile, and TAL metal analyses for 11 ground water samples, 1 field duplicate, 1 equipment blank, and 1 field blank; the results of general chemistry analyses for 11 ground water samples and 1 field duplicate; and the results of uranium, PFAS, and 1,4-dioxane analyses for 4 ground water samples, 1 field duplicate, 1 equipment blank, and 1 field blank.

The overall performances of the analyses are acceptable. Alpha Analytical Labs did fulfill the requirements of the analytical methods.

The data are mostly acceptable with some issues that are identified in the accompanying data validation reviews. The following data were qualified:

- The “not detected” volatile results for bromomethane were qualified as “estimated” (UJ) for samples MW-3A, MW-6A, MW-6B, MW-6C, MW-7A, MW-7B, and MW-7C because the 2 of 2 percent recoveries for bromomethane were below QC limits, but not below 30% in the associated aqueous LCS/LSCD.
- The “not detected” volatile results for bromomethane were qualified as “estimated” (UJ) for samples MW-8A, MW-8B, MW-8C2, DUP, FIELD BLANK, EQUIPMENT BLANK, and TRIP BLANK because the 1 of 2 percent recoveries for chloromethane was below QC limits, but not below 30% in the associated aqueous LCS/LSCD.
- Positive semi-volatile result for phenol was qualified as “not detected” (U) for sample MW-6A because the level reported in the sample was not significantly greater than (more than 5 times) the highest associated blank level.

- The “not detected” semi-volatile results for hexachlorocyclopentadiene were qualified as “rejected, unusable” (R) for the following samples because 2 of 2 percent recoveries for hexachlorocyclopentadiene were below QC limits and below 30% for the associated aqueous LCS/LCSDs.

MW-3A	MW-6A	MW-6B	MW-6C	MW-8A
MW-8B	MW-8C2	MW-9B	DUP	

- The “not detected” semi-volatile results for 2,4-dimethylphenol were qualified as “rejected, unusable” (R) for samples MW-6A, MW-6B, MW-6C, MW-8A, MW-8B, and MW-8C2 because 1 of 2 percent recoveries for 2,4-dimethylphenol was below QC limits and below 30% for the associated aqueous LCS/LCSD.
- The “not detected” semi-volatile result for bis(2-chloroisopropyl)ether was qualified as “estimated” (UJ) for sample MW-9B because 1 of 2 percent recoveries for bis(2-chloroisopropyl)ether was below QC limits, but not below 30% for the aqueous MS/MSD sample.
- The “not detected” semi-volatile result for 2,4-dimethylphenol was qualified as “rejected, unusable” (R) for sample MW-9B because 1 of 2 percent recoveries for 2,4-dimethylphenol was below QC limits and below 30% for the aqueous MS/MSD.
- The positive SIM semi-volatile results for naphthalene were qualified as “not detected” (U) for samples MW-9B and DUP because the level reported in the samples were not significantly greater than (more than 5 times) the highest associated blank level.
- The positive total metal results for calcium were qualified as estimated, biased high (J+) for all 11 ground water samples and the field duplicate because 1 of 2 percent recoveries for calcium was above control limits in the associated aqueous total MS/MSD sample.
- The positive dissolved and total metal results for aluminum were qualified as “estimated” (J) for sample MW-8A because the dissolved concentration was greater than the total concentrations plus 10%.
- The positive dissolved and total metal results for chromium were qualified as “estimated” (J) for sample MW-9B because the dissolved concentration was greater than the total concentrations plus 10%.

- The positive total metal results for aluminum and chromium were qualified as estimated (J) for samples MW-6A and DUP because the relative percent differences for aluminum and chromium were above the allowable maximum for the aqueous field duplicate pair MW-6A/DUP.

- The positive general chemistry results for total kjeldahl nitrogen (TKN) were qualified as estimated (J) for the following samples because the relative percent difference for TKN was above the allowable maximum for the associated aqueous batch duplicate sample.

MW-3A	MW-6A	MW-6B	MW-6C	MW-7A
MW-7B	MW-8B	MW-8C2	MW-9B	DUP

- The positive general chemistry results for ammonia were qualified as estimated (J) for the following samples because the relative percent difference for ammonia was above the allowable maximum for the associated aqueous duplicate sample.

MW-6A	MW-6B	MW-6C	MW-7A	MW-7B
MW-7C	MW-8B	MW-8C2	MW-9B	DUP

- The positive general chemistry results for bromide were qualified as estimated, biased low (J-) for the following samples because the percent recovery for bromide was below acceptable limits, but not below 30% for the associated aqueous spike sample.

MW-6A	MW-6B	MW-6C	MW-7A	MW-7B	
MW-7C	MW-8A	MW-8B	MW-8C2	MW-9B	DUP

- The “not detected” general chemistry results for sulfide were qualified as estimated (UJ) for all 11 ground water samples and the field duplicate because the samples were analyzed beyond USEPA SW-846 holding times.

All data that are not qualified rejected (R) are considered usable with estimated (J-, J, J+, or UJ) data associated with a higher level of quantitative uncertainty. Detailed information on data quality is included in the data validation reviews.

Qualified Data Section

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:35
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:35
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:35
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A20
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:59
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A20
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:59
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A20
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:59
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A21
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:23
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A21
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:23
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A21
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:23
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A22
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:47
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A22
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:47
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A22
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:47
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A23
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:10
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A23
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:10
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A23
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:10
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A24
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:34
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A24
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:34
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A24
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:34
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A25
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:58
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U UJ
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A25
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:58
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : VG241127A25
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 17:58
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : GONZO
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 07:50
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 07:50
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 07:50
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 07:25
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 07:25
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 07:25
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:59
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:59
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:59
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241202A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 08:42
 Dilution Factor : 1
 Analyst : PID
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241202A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 08:42
 Dilution Factor : 1
 Analyst : PID
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241202A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 08:42
 Dilution Factor : 1
 Analyst : PID
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:34
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:34
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:34
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 05:42
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 05:42
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 05:42
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:08
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:08
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 06:08
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-15
 Client ID : TRIP BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 05:17
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U UJ
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-15
 Client ID : TRIP BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 05:17
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.17	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
79-20-9	Methyl Acetate	ND	2.0	0.23	U
110-82-7	Cyclohexane	ND	10	0.27	U
123-91-1	1,4-Dioxane	ND	250	61.	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-15
 Client ID : TRIP BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V05241128A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/28/24 05:17
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
76-13-1	Freon-113	ND	2.5	0.70	U
108-87-2	Methyl cyclohexane	ND	10	0.40	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 07:56
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	1.9	3.0	1.4	J
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 07:56
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 07:56
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:56
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:56
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	0.45	5.0	0.35	J U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary
Form 1
Semivolatile Organics by GC/MS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E
Lab File ID : 68567-02
Sample Amount : 100 ml
Extraction Method : EPA 3510C
Extract Volume : 1000 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 11/27/24 09:56
Date Extracted : 11/25/24
Dilution Factor : 1
Analyst : JG
Instrument ID : SV106
GC Column : RTX5-MS
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 10:20
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 10:20
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 10:20
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 10:44
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 10:44
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 10:44
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:05
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:05
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:05
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:28
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:28
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:28
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:50
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:50
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:50
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 12:20
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 12:20
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 12:20
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 20:21
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV107
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 20:21
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV107
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 20:21
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV107
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 20:48
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV107
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 20:48
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV107
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 20:48
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV107
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:08
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U UJ
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:08
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U R
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:08
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:32
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U R
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	2.6	5.0	0.96	J
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:32
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:32
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : SV106
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 19:12
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 19:12
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	1.4	5.0	0.35	J
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 19:12
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-14
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 19:35
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
111-44-4	Bis(2-chloroethyl)ether	ND	2.0	0.39	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	1.8	U
121-14-2	2,4-Dinitrotoluene	ND	5.0	0.54	U
606-20-2	2,6-Dinitrotoluene	ND	5.0	0.84	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.39	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.24	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.0	0.40	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.0	0.84	U
77-47-4	Hexachlorocyclopentadiene	ND	20	1.2	U
78-59-1	Isophorone	ND	5.0	0.86	U
98-95-3	Nitrobenzene	ND	2.0	0.20	U
86-30-6	NDPA/DPA	ND	2.0	0.92	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.0	0.91	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.0	1.4	U
85-68-7	Butyl benzyl phthalate	ND	5.0	2.6	U
84-74-2	Di-n-butylphthalate	ND	5.0	0.96	U
117-84-0	Di-n-octylphthalate	ND	5.0	2.3	U
84-66-2	Diethyl phthalate	ND	5.0	0.76	U
131-11-3	Dimethyl phthalate	ND	5.0	0.92	U
92-52-4	Biphenyl	ND	2.0	0.20	U
106-47-8	4-Chloroaniline	ND	5.0	0.47	U
88-74-4	2-Nitroaniline	ND	5.0	1.0	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 68567-14
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 19:35
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : JG
 Instrument ID : DAKOTA
 GC Column : RTX5-MS
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
99-09-2	3-Nitroaniline	ND	5.0	1.2	U
100-01-6	4-Nitroaniline	ND	5.0	1.4	U
132-64-9	Dibenzofuran	ND	2.0	0.40	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	10	0.24	U
98-86-2	Acetophenone	ND	5.0	0.92	U
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.1	U
59-50-7	p-Chloro-m-cresol	ND	2.0	0.61	U
95-57-8	2-Chlorophenol	ND	2.0	0.65	U
120-83-2	2,4-Dichlorophenol	ND	5.0	1.7	U
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	U
88-75-5	2-Nitrophenol	ND	10	2.0	U
100-02-7	4-Nitrophenol	ND	10	1.4	U
51-28-5	2,4-Dinitrophenol	ND	20	5.4	U
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.3	U
108-95-2	Phenol	ND	5.0	0.35	U
95-48-7	2-Methylphenol	ND	5.0	2.3	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.0	1.4	U
95-95-4	2,4,5-Trichlorophenol	ND	5.0	2.1	U
86-74-8	Carbazole	ND	2.0	0.31	U
1912-24-9	Atrazine	ND	10	1.0	U
100-52-7	Benzaldehyde	ND	5.0	1.1	U
105-60-2	Caprolactam	ND	10	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client	: Alpha Geoscience	Lab Number	: L2468567
Project Name	: RANCO MINE	Project Number	: 12123
Lab ID	: L2468567-14	Date Collected	: 11/19/24 13:50
Client ID	: EQUIPMENT BLANK	Date Received	: 11/21/24
Sample Location	: MANORVILLE, NY	Date Analyzed	: 11/24/24 19:35
Sample Matrix	: WATER	Date Extracted	: 11/23/24
Analytical Method	: 1,8270E	Dilution Factor	: 1
Lab File ID	: 68567-14	Analyst	: JG
Sample Amount	: 100 ml	Instrument ID	: DAKOTA
Extraction Method	: EPA 3510C	GC Column	: RTX5-MS
Extract Volume	: 1000 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	5.0	2.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:39
 Date Extracted : 11/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:50
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 09:16
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV125
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	0.13	0.80	0.06	J
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 13:35
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 17:42
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : KMH
 Instrument ID : SV125
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 17:58
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : KMH
 Instrument ID : SV125
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	0.01	0.80	0.01	J
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:15
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : KMH
 Instrument ID : SV125
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:07
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 16:24
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 13:52
 Date Extracted : 11/25/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 08:48
 Date Extracted : 11/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	0.05	0.10	0.02	J U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:56
 Date Extracted : 11/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV118
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	0.04	0.10	0.02	J U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:31
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : KMH
 Instrument ID : SV125
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	0.04	0.10	0.02	J
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 68567-14
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 11/24/24 18:47
 Date Extracted : 11/23/24
 Dilution Factor : 1
 Analyst : KMH
 Instrument ID : SV125
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F1111272406
Sample Amount : 250 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 11/27/24 11:38
Date Extracted : 11/24/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : BNA11
GC Column : RTX-5
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	150	33.9	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F1111272407
Sample Amount : 270 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 11/27/24 12:01
Date Extracted : 11/24/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : BNA11
GC Column : RTX-5
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	139	31.4	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F1111272408
Sample Amount : 270 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 11/27/24 12:24
Date Extracted : 11/24/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : BNA11
GC Column : RTX-5
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	139	31.4	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F1111272409
Sample Amount : 270 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:40
Date Received : 11/21/24
Date Analyzed : 11/27/24 12:47
Date Extracted : 11/24/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : BNA11
GC Column : RTX-5
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	139	31.4	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F1111272412
Sample Amount : 270 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 11/27/24 13:56
Date Extracted : 11/24/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : BNA11
GC Column : RTX-5
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	139	31.4	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-13
Client ID : FIELD BLANK
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F1111272413
Sample Amount : 260 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 13:35
Date Received : 11/21/24
Date Analyzed : 11/27/24 14:19
Date Extracted : 11/24/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : BNA11
GC Column : RTX-5
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	144	32.6	U



Results Summary
Form 1
1,4 Dioxane by 8270E-SIM

Client	: Alpha Geoscience	Lab Number	: L2468567
Project Name	: RANCO MINE	Project Number	: 12123
Lab ID	: L2468567-14	Date Collected	: 11/19/24 13:50
Client ID	: EQUIPMENT BLANK	Date Received	: 11/21/24
Sample Location	: MANORVILLE, NY	Date Analyzed	: 11/27/24 14:42
Sample Matrix	: WATER	Date Extracted	: 11/24/24
Analytical Method	: 1,8270E-SIM	Dilution Factor	: 1
Lab File ID	: F1111272414	Analyst	: GRS
Sample Amount	: 250 ml	Instrument ID	: BNA11
Extraction Method	: EPA 3510C	GC Column	: RTX-5
Extract Volume	: 2500 uL	%Solids	: N/A
GPC Cleanup	: N	Injection Volume	: 1 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
123-91-1	1,4-Dioxane	ND	150	33.9	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_20
 Sample Amount : 537.35 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 07:59
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	5.96	0.491	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.98	0.335	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.49	0.372	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.96	0.849	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.49	0.231	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.49	0.194	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.49	0.223	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.49	0.126	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.49	0.246	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.96	4.48	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.49	0.186	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.49	0.246	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	0.782	1.49	0.246	J
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.49	0.194	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.96	1.14	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.49	0.186	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.49	0.447	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.49	0.164	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_20
 Sample Amount : 537.35 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 07:59
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.49	0.126	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.49	0.089	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.49	0.447	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.49	0.201	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.49	0.171	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.49	0.149	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.96	1.49	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.96	0.350	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.49	0.223	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.96	0.409	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.96	0.417	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.49	0.208	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.49	0.328	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.9	1.21	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_20
 Sample Amount : 537.35 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 07:59
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.9	1.03	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.98	0.231	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.98	0.335	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	2.98	0.305	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.98	0.506	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.44	0.499	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.2	3.96	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.2	2.96	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_21
 Sample Amount : 520.13 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 08:08
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	3.22	6.15	0.508	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.48	3.08	0.346	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.777	1.54	0.384	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.15	0.877	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	1.24	1.54	0.238	J
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.54	0.200	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.738	1.54	0.231	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.677	1.54	0.131	J
335-67-1	Perfluorooctanoic Acid (PFOA)	4.12	1.54	0.254	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.15	4.63	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.54	0.192	U
375-95-1	Perfluorononanoic Acid (PFNA)	0.692	1.54	0.254	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.02	1.54	0.254	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.415	1.54	0.200	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.15	1.18	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.54	0.192	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.54	0.461	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.231	1.54	0.169	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_21
 Sample Amount : 520.13 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 08:08
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.54	0.131	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.54	0.092	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.54	0.461	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.54	0.208	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.54	0.177	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.54	0.154	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.15	1.54	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.15	0.361	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.54	0.231	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.15	0.423	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.15	0.431	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.54	0.215	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.54	0.338	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.4	1.25	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_21
 Sample Amount : 520.13 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 08:08
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.4	1.06	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.08	0.238	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.08	0.346	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.08	0.315	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.08	0.523	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.69	0.515	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.4	4.09	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.4	3.06	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_25
 Sample Amount : 541.86 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:00
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	3.31	5.90	0.487	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	0.893	2.95	0.332	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.664	1.48	0.369	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.90	0.842	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	0.524	1.48	0.229	J
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.48	0.192	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.384	1.48	0.221	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.568	1.48	0.125	J
335-67-1	Perfluorooctanoic Acid (PFOA)	4.17	1.48	0.244	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.90	4.44	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.48	0.184	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.12	1.48	0.244	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.81	1.48	0.244	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.576	1.48	0.192	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.90	1.13	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.48	0.184	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.48	0.443	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	0.288	1.48	0.162	J



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_25
 Sample Amount : 541.86 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:00
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.48	0.125	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.48	0.089	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.48	0.443	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.48	0.199	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.48	0.170	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.48	0.148	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.90	1.48	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.90	0.347	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.48	0.221	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.90	0.406	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.90	0.413	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.48	0.207	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.48	0.325	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.8	1.20	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_25
 Sample Amount : 541.86 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:00
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.8	1.02	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.95	0.229	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.95	0.332	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.95	0.303	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.95	0.502	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.38	0.494	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	36.9	3.93	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	36.9	2.94	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_26
 Sample Amount : 539.53 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:09
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	17.2	5.93	0.489	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	2.96	0.334	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.48	0.371	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.93	0.845	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.48	0.230	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.48	0.193	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.549	1.48	0.222	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.222	1.48	0.126	J
335-67-1	Perfluorooctanoic Acid (PFOA)	4.43	1.48	0.245	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.93	4.46	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.48	0.185	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.48	0.245	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	0.534	1.48	0.245	J
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.48	0.193	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.93	1.13	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.48	0.185	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.48	0.445	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.48	0.163	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_26
 Sample Amount : 539.53 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:09
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.48	0.126	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.48	0.089	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.48	0.445	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.48	0.200	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.48	0.170	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.48	0.148	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.93	1.48	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.93	0.348	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.48	0.222	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.93	0.408	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.93	0.415	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.48	0.208	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.48	0.326	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.8	1.21	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_26
 Sample Amount : 539.53 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:09
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	14.8	1.02	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.96	0.230	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.96	0.334	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	2.96	0.304	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.96	0.504	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.41	0.497	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.1	3.94	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.1	2.95	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_29
 Sample Amount : 494.96 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:35
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	3.18	6.46	0.533	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.64	3.23	0.364	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.889	1.62	0.404	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.46	0.921	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	1.24	1.62	0.250	J
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.62	0.210	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.937	1.62	0.242	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.752	1.62	0.137	J
335-67-1	Perfluorooctanoic Acid (PFOA)	3.96	1.62	0.267	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.46	4.86	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.62	0.202	U
375-95-1	Perfluorononanoic Acid (PFNA)	0.808	1.62	0.267	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	2.31	1.62	0.267	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.436	1.62	0.210	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.46	1.24	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.62	0.202	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.62	0.485	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.62	0.178	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_29
 Sample Amount : 494.96 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:35
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.62	0.137	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.62	0.097	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.62	0.485	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.62	0.218	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.62	0.186	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.62	0.162	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.46	1.62	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.46	0.380	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.62	0.242	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.46	0.444	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.46	0.452	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.62	0.226	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.62	0.356	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.2	1.32	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_29
 Sample Amount : 494.96 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:35
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	16.2	1.12	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.23	0.250	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.23	0.364	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.23	0.331	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.23	0.550	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	8.08	0.541	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	40.4	4.30	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	40.4	3.22	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_30
 Sample Amount : 529.23 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:44
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	6.05	0.499	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.02	0.340	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.51	0.378	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.05	0.862	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.51	0.234	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.51	0.196	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.51	0.227	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.51	0.128	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.51	0.249	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.05	4.55	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.51	0.189	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.51	0.249	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.51	0.249	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.51	0.196	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.05	1.16	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.51	0.189	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.51	0.453	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.51	0.166	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_30
 Sample Amount : 529.23 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:44
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.51	0.128	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.51	0.091	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.51	0.453	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.51	0.204	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.51	0.174	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.51	0.151	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.05	1.51	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.05	0.355	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.51	0.227	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.05	0.416	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.05	0.423	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.51	0.212	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.51	0.332	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.1	1.23	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_30
 Sample Amount : 529.23 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:44
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.1	1.04	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.02	0.234	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.02	0.340	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.02	0.310	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.02	0.514	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.56	0.506	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.8	4.02	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.8	3.01	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_31
 Sample Amount : 533.76 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:53
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
375-22-4	Perfluorobutanoic Acid (PFBA)	ND	6.00	0.495	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.00	0.337	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.50	0.375	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.00	0.854	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.50	0.232	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.50	0.195	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.50	0.225	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.50	0.127	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.50	0.247	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.00	4.51	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.50	0.187	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.50	0.247	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.50	0.247	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.50	0.195	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.00	1.15	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.50	0.187	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.50	0.450	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.50	0.165	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_31
 Sample Amount : 533.76 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:53
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
335-77-3	Perfluorodecanesulfonic Acid (PFDS)	ND	1.50	0.127	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.50	0.090	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.50	0.450	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.50	0.202	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.50	0.172	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.50	0.150	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.00	1.50	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.00	0.352	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.50	0.225	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.00	0.412	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.00	0.420	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.50	0.210	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.50	0.330	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.0	1.22	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI09_241218_31
 Sample Amount : 533.76 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 12/18/24 09:53
 Date Extracted : 12/16/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS09
 GC Column : Acquity UPLC BEH C18
 %Solids : N/A
 Injection Volume : 3 uL

CAS NO.	Parameter	ng/l			Qualifier
		Results	RL	MDL	
1691-99-2	N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	ND	15.0	1.03	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.00	0.232	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.00	0.337	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.00	0.307	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.00	0.510	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.49	0.502	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.5	3.99	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.5	2.98	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2003903.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 20:34
 Dilution Factor : 1
 Analyst : WKP
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.00615	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	0.00198	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.05292	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	16.3	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00158	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	0.00046	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	2.43	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00277	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.28	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	7.52	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:13
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.0154	0.0100	0.00327	
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01863	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	4.06	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00058	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	1.21	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.01808	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.52	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	4.96	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:18
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01968	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	21.8	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00035	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	0.00054	0.00050	0.00016	
7440-50-8	Copper, Dissolved	0.00041	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	4.77	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	3.526	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.04	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	12.1	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2004920.csv
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 12/04/24 18:23
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04259	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	38.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00052	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	0.00052	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	8.82	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.04639	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.62	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	11.8	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2004920.csv
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 12/04/24 18:27
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04293	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	70.4	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00034	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	0.00086	0.00100	0.00038	J
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	15.3	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00298	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	4.40	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	13.2	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:56
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:32
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01778	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	16.5	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00095	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.36	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.1216	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.76	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	10.7	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:00
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:37
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.01906	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	23.1	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00037	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.89	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.01195	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.02	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	12.0	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:55
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:41
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02335	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	16.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00121	0.00100	0.00017	
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	7.00	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00093	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.79	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	11.8	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:21
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:46
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.0225	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02937	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	21.1	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00490	0.00100	0.00017	
7440-48-4	Cobalt, Dissolved	0.00018	0.00050	0.00016	J
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	0.0827	0.0500	0.0191	
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.76	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00386	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	0.00607	0.00200	0.00055	
7440-09-7	Potassium, Dissolved	2.16	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	11.2	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:43
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:51
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02583	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	25.7	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00033	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	4.84	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00080	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.14	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	12.2	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:37
Date Received : 11/21/24
Date Analyzed : 12/04/24 18:56
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02297	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	29.4	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00043	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	ND	0.0500	0.0191	U
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	5.84	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00046	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.00	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	11.8	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 12/04/24 19:28
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-36-0	Antimony, Dissolved	0.00225	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.02027	0.00050	0.00017	
7440-41-7	Beryllium, Dissolved	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Dissolved	ND	0.00020	0.00005	U
7440-70-2	Calcium, Dissolved	22.0	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00040	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	0.00062	0.00050	0.00016	
7440-50-8	Copper, Dissolved	ND	0.00100	0.00038	U
7439-89-6	Iron, Dissolved	0.0202	0.0500	0.0191	J
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	4.86	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	3.630	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.03	0.100	0.0309	
7782-49-2	Selenium, Dissolved	ND	0.00500	0.00173	U
7440-22-4	Silver, Dissolved	ND	0.00040	0.00016	U
7440-23-5	Sodium, Dissolved	12.4	0.500	0.0293	
7440-28-0	Thallium, Dissolved	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Dissolved	ND	0.00500	0.00157	U
7440-66-6	Zinc, Dissolved	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 12/04/24 15:55
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0183	0.0100	0.00327	
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.01865	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	4.26	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00072	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	1.28	0.0700	0.0242	
7439-96-5	Manganese, Total	0.01818	0.00100	0.00044	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	1.64	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	5.33	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 12/04/24 15:59
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0110	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.01908	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	22.7	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00135	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00058	0.00050	0.00016	
7440-50-8	Copper, Total	0.00039	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0437	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	4.97	0.0700	0.0242	
7439-96-5	Manganese, Total	3.541	0.00100	0.00044	
7440-02-0	Nickel, Total	0.00098	0.00200	0.00055	J
7440-09-7	Potassium, Total	3.22	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.5	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2004920.csv
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 12/04/24 16:04
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 11/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00721	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.04214	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	40.3	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00051	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00179	0.00100	0.00038	
7439-89-6	Iron, Total	0.0215	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	9.09	0.0700	0.0242	
7439-96-5	Manganese, Total	0.09310	0.00100	0.00044	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	3.75	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.2	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2005486.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:45
Date Received : 11/21/24
Date Analyzed : 12/05/24 12:59
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSRQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00787	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.04474	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	74.3	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00136	0.00100	0.00017	
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00078	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0311	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	16.1	0.0700	0.0242	
7439-96-5	Manganese, Total	0.00275	0.00100	0.00044	
7440-02-0	Nickel, Total	0.00104	0.00200	0.00055	J
7440-09-7	Potassium, Total	4.74	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	13.6	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2005486.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 12/05/24 13:04
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSRQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.01864	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	17.7	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00059	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	5.80	0.0700	0.0242	
7439-96-5	Manganese, Total	0.1220	0.00100	0.00044	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	1.98	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	11.4	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2005486.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 12/05/24 13:09
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSRQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0877	0.0100	0.00327	
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02007	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	25.1	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00108	0.00100	0.00017	
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	0.0973	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	6.54	0.0700	0.0242	
7439-96-5	Manganese, Total	0.01405	0.00100	0.00044	
7440-02-0	Nickel, Total	0.00058	0.00200	0.00055	J
7440-09-7	Potassium, Total	2.27	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.8	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2005486.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:55
Date Received : 11/21/24
Date Analyzed : 12/05/24 13:35
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSRQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02454	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	18.0	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00194	0.00100	0.00017	
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	7.76	0.0700	0.0242	
7439-96-5	Manganese, Total	0.00051	0.00100	0.00044	J
7440-02-0	Nickel, Total	0.00058	0.00200	0.00055	J
7440-09-7	Potassium, Total	2.06	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.8	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2005486.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 12/05/24 13:39
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSRQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0139	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.03268	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	24.1	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.02070	0.00100	0.00017	
7440-48-4	Cobalt, Total	0.00037	0.00050	0.00016	J
7440-50-8	Copper, Total	0.00092	0.00100	0.00038	J
7439-89-6	Iron, Total	0.157	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	6.71	0.0700	0.0242	
7439-96-5	Manganese, Total	0.00695	0.00100	0.00044	
7440-02-0	Nickel, Total	0.01402	0.00200	0.00055	
7440-09-7	Potassium, Total	2.55	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.7	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2005486.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 12/05/24 13:44
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSRQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00644	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02614	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	26.9	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00074	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	1.067	0.00100	0.00038	
7439-89-6	Iron, Total	0.0193	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	5.20	0.0700	0.0242	
7439-96-5	Manganese, Total	0.00134	0.00100	0.00044	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.28	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.8	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2005486.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:37
Date Received : 11/21/24
Date Analyzed : 12/05/24 13:49
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSRQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00424	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02285	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	30.2	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00053	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00093	0.00100	0.00038	J
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	6.26	0.0700	0.0242	
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	3.20	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	12.1	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2005486.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:40
Date Received : 11/21/24
Date Analyzed : 12/05/24 12:36
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSRQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00724	0.0100	0.00327	J
7440-36-0	Antimony, Total	0.00042	0.00400	0.00042	J
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.05043	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	16.4	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00132	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	2.46	0.0700	0.0242	
7439-96-5	Manganese, Total	0.00153	0.00100	0.00044	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.32	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	7.44	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG2005486.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 12/05/24 13:53
Dilution Factor : 1
Analyst : NTB
Instrument ID : ICPMSRQ
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0150	0.0100	0.00327	J
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.02124	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	23.0	0.100	0.0394	J+
7440-47-3	Chromium, Total	0.00214	0.00100	0.00017	J
7440-48-4	Cobalt, Total	0.00061	0.00050	0.00016	
7440-50-8	Copper, Total	0.00049	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0514	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	5.32	0.0700	0.0242	
7439-96-5	Manganese, Total	3.776	0.00100	0.00044	
7440-02-0	Nickel, Total	0.00121	0.00200	0.00055	J
7440-09-7	Potassium, Total	3.33	0.100	0.0309	
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	13.1	0.500	0.0293	
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2005486.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 12/05/24 13:25
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSRQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	ND	0.100	0.0394	U
7440-47-3	Chromium, Total	0.00037	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	ND	0.100	0.0309	U
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	ND	0.500	0.0293	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1 METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG2005486.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 12/05/24 13:30
 Dilution Factor : 1
 Analyst : NTB
 Instrument ID : ICPMSRQ
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	ND	0.00050	0.00017	U
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	ND	0.00020	0.00005	U
7440-70-2	Calcium, Total	0.0553	0.100	0.0394	J
7440-47-3	Chromium, Total	0.00044	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	ND	0.0500	0.0191	U
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	ND	0.0700	0.0242	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	ND	0.100	0.0309	U
7782-49-2	Selenium, Total	ND	0.00500	0.00173	U
7440-22-4	Silver, Total	ND	0.00040	0.00016	U
7440-23-5	Sodium, Total	ND	0.500	0.0293	U
7440-28-0	Thallium, Total	ND	0.00100	0.00014	U
7440-62-2	Vanadium, Total	ND	0.00500	0.00157	U
7440-66-6	Zinc, Total	ND	0.01000	0.00341	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003107.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 11/27/24 16:15
Dilution Factor : 1
Analyst : MJR
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003107.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 11/27/24 16:18
Dilution Factor : 1
Analyst : MJR
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003107.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 11/27/24 16:22
Dilution Factor : 1
Analyst : MJR
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:30
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:34
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:37
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:45
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:40
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:56
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:44
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:00
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:47
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2003965.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 11:50
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2003965.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 11:54
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:43
Date Received : 11/21/24
Date Analyzed : 12/02/24 12:04
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2003965.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 12:14
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:40
Date Received : 11/21/24
Date Analyzed : 12/02/24 11:14
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2003965.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 12/02/24 12:17
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : WG2003198-1
 Client ID : WG2003198-1BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2003965.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 12/02/24 11:07
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Dissolved	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:45
Date Received : 11/21/24
Date Analyzed : 12/02/24 13:58
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:56
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:01
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:00
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:04
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:55
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:08
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:21
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:11
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:43
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:32
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:37
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:36
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2004100.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 13:48
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC3
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG2004100.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 12/02/24 14:39
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC3
%Solids : N/A
Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2004100.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:35
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 14:42
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC3
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG2004100.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 13:50
 Date Received : 11/21/24
 Date Analyzed : 12/02/24 14:46
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC3
 %Solids : N/A
 Date Digested : 11/30/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7439-97-6	Mercury, Total	ND	0.00020	0.00009	U



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320241203-A
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 12/03/24 10:06
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.085	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-A
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 10:07
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.184	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-A
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 10:08
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.566	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-A
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 10:12
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	1.15	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-A
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 10:13
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.128	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-A
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 10:14
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.136	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320241203-A
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:55
Date Received : 11/21/24
Date Analyzed : 12/03/24 10:15
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	ND	0.300	0.066	U



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320241203-A
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:21
Date Received : 11/21/24
Date Analyzed : 12/03/24 10:16
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	ND	0.300	0.066	U



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320241203-H
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:43
Date Received : 11/21/24
Date Analyzed : 12/03/24 18:21
Dilution Factor : 1
Analyst : AT
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.668	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320241203-H
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:37
Date Received : 11/21/24
Date Analyzed : 12/03/24 18:22
Dilution Factor : 1
Analyst : AT
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.428	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-H
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 18:26
 Dilution Factor : 1
 Analyst : AT
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.106	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320241203-H
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 18:27
 Dilution Factor : 1
 Analyst : AT
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.190	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241202-A
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 12/02/24 10:04
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/02/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	ND	0.075	0.024	U



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241203-C
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 12/03/24 12:02
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.202	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241203-C
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 12/03/24 12:03
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.622	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320241203-C
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 12:04
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	1.22	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320241203-C
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 12:05
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.042	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320241203-C
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 12:06
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.030	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241203-C
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:55
Date Received : 11/21/24
Date Analyzed : 12/03/24 12:07
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.083	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320241203-C
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 12/03/24 12:08
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	ND	0.075	0.024	U



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241203-C
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:43
Date Received : 11/21/24
Date Analyzed : 12/03/24 12:13
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.142	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241203-C
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:37
Date Received : 11/21/24
Date Analyzed : 12/03/24 12:14
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.154	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320241204-A
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:40
Date Received : 11/21/24
Date Analyzed : 12/04/24 09:33
Dilution Factor : 1
Analyst : KEM
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.137	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320241204-A
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 12/04/24 09:34
 Dilution Factor : 1
 Analyst : KEM
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 12/03/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.140	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:21
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.099	0.10	0.046	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:25
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:29
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:30
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:31
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.14	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:33
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:34
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.86	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NO3-F
Lab File ID : NO3241130-B1
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:21
Date Received : 11/21/24
Date Analyzed : 11/30/24 04:35
Dilution Factor : 1
Analyst : MRM
Instrument ID : LACHAT4
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.18	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:36
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.073	0.10	0.046	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:38
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.55	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:39
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	5.3	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NO3-F
 Lab File ID : NO3241130-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/30/24 04:40
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID : LACHAT4
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	ND	0.10	0.046	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001373.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/23/24 09:33
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	80.	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001988.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/25/24 12:12
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	140	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2540C
Lab File ID : WG2001988.pdf
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 11/25/24 12:12
Dilution Factor : 1.3
Analyst : SMD
Instrument ID : BALANCE#22
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	180	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001988.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/25/24 12:12
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	320	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001373.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/23/24 09:33
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	140	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001373.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/23/24 09:33
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	160	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001373.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/23/24 09:33
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	160	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001988.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/25/24 12:12
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	110	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001988.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/25/24 12:12
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	120	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001988.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/25/24 12:12
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	130	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001373.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/23/24 09:33
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	140	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG2001373.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/23/24 09:33
 Dilution Factor : 1.3
 Analyst : SMD
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	150	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 08:48
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	10.4	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 08:49
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	67.4	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 08:57
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	113.	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:00
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	224.	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:06
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	49.4	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:08
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	71.8	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:11
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	42.7	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:13
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	61.4	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:15
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	62.2	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:18
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	77.5	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 241127.csv
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:40
Date Received : 11/21/24
Date Analyzed : 11/27/24 09:21
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	9.82	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 241127.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 09:22
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
3812-32-6	Alkalinity, Carbonate	ND	2.00	NA	U
71-52-3	Alkalinity, Bicarbonate	67.8	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 12/01/24 16:59
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.028	0.031	0.012	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:25
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:00
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.107	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:01
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.031	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS120124-WG2003759
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 12/01/24 17:02
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.080	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS120124-WG2003759
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 12/01/24 17:03
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.055	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:00
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:04
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.110	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS120124-WG2003759
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 12/01/24 17:05
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.043	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 08:21
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:06
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.040	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:43
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:07
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.040	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS120124-WG2003759
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 12/01/24 17:08
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.101	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 12:40
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:11
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.018	0.031	0.012	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS120124-WG2003759
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 12/01/24 17:13
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 12/01/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.107	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 15:10
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 14:57
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	8.92	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	5.11	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,300.0
Lab File ID : WG2003347-48
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 15:10
Date Received : 11/21/24
Date Analyzed : 11/27/24 12:39
Dilution Factor : 1
Analyst : CVN,
Instrument ID : IC3
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.102	0.050	0.013	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 13:12
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.283	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:25
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 15:09
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	22.0	0.500	0.083	
16984-48-8	Fluoride	0.062	0.050	0.037	
14808-79-8	Sulfate	14.1	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:40
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 15:21
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	21.4	0.500	0.083	
16984-48-8	Fluoride	0.057	0.050	0.037	
14808-79-8	Sulfate	21.6	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,300.0
Lab File ID : WG2003347-48
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 09:40
Date Received : 11/21/24
Date Analyzed : 11/27/24 13:23
Dilution Factor : 1
Analyst : CVN,
Instrument ID : IC3
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.228	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:45
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 15:33
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	20.4	0.500	0.083	
16984-48-8	Fluoride	0.077	0.050	0.037	
14808-79-8	Sulfate	12.8	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,300.0
Lab File ID : WG2003347-48
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 10:45
Date Received : 11/21/24
Date Analyzed : 11/27/24 13:34
Dilution Factor : 1
Analyst : CVN,
Instrument ID : IC3
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.358	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 13:45
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.164	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:56
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 15:45
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	19.1	0.500	0.083	
16984-48-8	Fluoride	0.045	0.050	0.037	J
14808-79-8	Sulfate	16.2	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 16:33
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	22.1	0.500	0.083	
16984-48-8	Fluoride	0.049	0.050	0.037	J
14808-79-8	Sulfate	11.4	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:00
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 13:56
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.178	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,300.0
Lab File ID : WG2003347-48
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/19/24 14:55
Date Received : 11/21/24
Date Analyzed : 11/27/24 14:28
Dilution Factor : 1
Analyst : CVN,
Instrument ID : IC3
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.157	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 14:55
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 16:46
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	21.5	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	23.4	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 14:39
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.168	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 08:21
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 16:58
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	21.3	0.500	0.083	
16984-48-8	Fluoride	0.055	0.050	0.037	
14808-79-8	Sulfate	17.4	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 17:10
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	21.1	0.500	0.083	
16984-48-8	Fluoride	0.107	0.050	0.037	
14808-79-8	Sulfate	22.4	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 10:43
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 14:50
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.152	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:01
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.167	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 09:37
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 17:22
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	21.4	0.500	0.083	
16984-48-8	Fluoride	0.082	0.050	0.037	
14808-79-8	Sulfate	21.6	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2003347-48
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/27/24 15:12
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.167	0.050	0.013	J-



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/19/24 12:40
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 17:34
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	12.8	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	19.2	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2468567-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG2002856-57-58-59
 Sample Amount :
 Digestion Method :

Lab Number : L2468567
 Project Number : 12123
 Date Collected : 11/20/24 00:00
 Date Received : 11/21/24
 Date Analyzed : 11/26/24 17:46
 Dilution Factor : 1
 Analyst : CVN,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
16887-00-6	Chloride	22.0	0.500	0.083	
16984-48-8	Fluoride	0.065	0.050	0.037	
14808-79-8	Sulfate	14.1	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2468567-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,300.0
Lab File ID : WG2003347-48
Sample Amount :
Digestion Method :

Lab Number : L2468567
Project Number : 12123
Date Collected : 11/20/24 00:00
Date Received : 11/21/24
Date Analyzed : 11/27/24 15:23
Dilution Factor : 1
Analyst : CVN,
Instrument ID : IC3
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.176	0.050	0.013	J-



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/19/2024 15:10

Field Sample #: MW-3A

Sample ID: 24K1956-01

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/20/2024 08:25

Field Sample #: MW-6A

Sample ID: 24K1956-02

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/20/2024 09:40

Field Sample #: MW-6B

Sample ID: 24K1956-03

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/20/2024 10:45

Field Sample #: MW-6C

Sample ID: 24K1956-04

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/18/2024 12:56

Field Sample #: MW-7A

Sample ID: 24K1956-05

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	11/27/24	11/27/24 13:00	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Field Sample #: MW-7B

Sampled: 11/18/2024 14:00

Sample ID: 24K1956-06

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	11/27/24	11/27/24 13:00	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/18/2024 14:55

Field Sample #: MW-7C

Sample ID: 24K1956-07

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/20/2024 08:21

Field Sample #: MW-8A

Sample ID: 24K1956-08

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/20/2024 10:43

Field Sample #: MW-8B

Sample ID: 24K1956-09

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/20/2024 09:37

Field Sample #: MW-8C2

Sample ID: 24K1956-10

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/19/2024 12:40

Field Sample #: MW-9B

Sample ID: 24K1956-11

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2468567

Sample Description:

Work Order: 24K1956

Date Received: 11/25/2024

Sampled: 11/19/2024 00:00

Field Sample #: DUP

Sample ID: 24K1956-12

Sample Matrix: Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Sulfide	ND	2.0	1.8	mg/L	1	UJ	SM21-23 4500S-F	12/4/24	12/4/24 19:40	EC

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0850	1.00	1	12/05/2024 02:17	WG2411870

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0850	1.00	1	12/05/2024 02:20	WG2411870

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	0.320	J	0.0850	1.00	1	12/05/2024 02:23	WG2411870

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0850	1.00	1	12/05/2024 01:57	WG2411870

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0850	1.00	1	12/05/2024 02:26	WG2411870

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0850	1.00	1	12/05/2024 02:29	WG2411870

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Uranium	U		0.0850	1.00	1	12/05/2024 02:33	WG2411870

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-3A		Lab ID: 50388874001		Collected: 11/19/24 15:10		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 13:42		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-6A		Lab ID: 50388874002		Collected: 11/20/24 08:25		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 14:04		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-6B		Lab ID: 50388874003		Collected: 11/20/24 09:40		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 14:25		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-6C		Lab ID: 50388874004		Collected: 11/20/24 10:45		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	0.27J	mg/L	0.50	0.15	1		12/08/24 14:46		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-7A		Lab ID: 50388874005		Collected: 11/19/24 12:56		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 15:07		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-7B		Lab ID: 50388874006		Collected: 11/19/24 14:00		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 15:29		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-7C		Lab ID: 50388874007		Collected: 11/19/24 14:55		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 15:50		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-8A		Lab ID: 50388874008		Collected: 11/20/24 08:21		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 16:11		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-8B		Lab ID: 50388874009		Collected: 11/20/24 10:43		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 16:33		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-8C2		Lab ID: 50388874010		Collected: 11/20/24 09:37		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 16:54		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: MW-9B		Lab ID: 50388874011		Collected: 11/19/24 12:40		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 18:40		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2468567
Pace Project No.: 50388874

Sample: DUP		Lab ID: 50388874012		Collected: 11/20/24 00:00		Received: 11/26/24 08:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC									
Analytical Method: EPA 9056									
Pace Analytical Services - Indianapolis									
Iodide	ND	mg/L	0.50	0.15	1		12/08/24 19:02		

REPORT OF LABORATORY ANALYSIS

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VOC Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8260D Volatiles Data
for Alpha Analytical, SDG Number: L2447890**

**11 Ground Water Samples, 1 Field Duplicate,
1 Field Blank, 1 Equipment Blank, and 1 Trip Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: The samples were analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The BFB tuning criteria were within control limits.

Initial Calibration: The average RRF for bromodichloromethane was below the method minimum, but not below 0.010 for GONZO on 10-03-24. The average RRF for 1,1,2-trichloroethane was below the method minimum, but not below 0.010 for VOA105 on 11-06-24. No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no average RRF is less than 0.010.

The average RRFs for target compounds were above the allowable minimum (0.001 for 1,4-dioxane, 0.010 for all other compounds) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The average RRFs for bromochloromethane, trichloroethene, bromodichloromethane, and 1,1,2-trichloroethane were below the method minimums, but not below 0.010 on 11-27-24 (VG241127A02). The average RRFs for bromodichloromethane and 1,1,2-trichloroethane were below the method minimums, but not below 0.010 on 11-28-24 (V05241128A01). The average RRF for 1,1,2-trichloroethane was below the method minimum, but not below 0.010 on 12-02-24 (V05241202A01). The %Ds for bromomethane, chloroethane, methyl tert-butyl ether, methyl cyclohexane, and 1,2-dibromo-3-chloropropane above the method maximum on 11-27-24 (VG241127A02). The %Ds for chloromethane, vinyl chloride, and bromomethane were above the method maximum on 11-28-24 (V05241128A01). The %D for acetone was above the method maximum on 12-02-24 (V05241202A01). No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no RRF is less than 0.010.

The average RRFs for target compounds were above the allowable minimum (0.001 for 1,4-dioxane, 0.010 for all other compounds), as required.

The %Ds for bromomethane, chloroethane, methyl tert-butyl ether, methyl cyclohexane, 1,4-dioxane, and 1,2-dibromo-3-chloropropane above the allowable maximum (20%) on 11-27-24 (VG241127A02). The %Ds for chloromethane, vinyl chloride, and bromomethane were above the allowable maximum (20%) on 11-28-24 (V05241128A01). The %D for acetone was above the allowable maximum (20%) on 12-02-24 (V05241202A01). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: The analyses of the method, trip, field, and equipment blanks reported target compounds as not detected.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples, trip blank, equipment blank, and field blank.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-9B.

Laboratory Control Sample: The percent recoveries (%Rs) for target compounds were within QC limits, but the relative percent differences (RPDs) for vinyl chloride and chloroethane were above the allowable maximum for aqueous samples WG2004034-3/4. Positive results for these compounds acetate should be considered estimated (J) in the associated aqueous samples.

The RPDs for target compounds were below the allowable maximum, but 2 of 2 %Rs for bromomethane were below QC limits, but not below 30% for aqueous samples WG2003221-3/4. The RPDs for target compounds were below the allowable maximum, but 1 of 2 %Rs for chloromethane were below QC limits, but not below 30% for aqueous samples WG2004084-3/4. Positive results for chloromethane and bromomethane should be considered estimated, biased low (J-) and “not detected” results estimated (UJ) in the associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported target compounds as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked surrogate results were within GC quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2003221-3** Analysis Date : 11/27/24 08:48 File ID : VG241127A02
 LCSD Sample ID : **WG2003221-4** Analysis Date : 11/27/24 09:12 File ID : VG241127A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	9.0	90	10	8.9	89	1	70-130	20
1,1-Dichloroethane	10	10	100	10	10	100	0	70-130	20
Chloroform	10	9.1	91	10	9.8	98	7	70-130	20
Carbon tetrachloride	10	9.0	90	10	9.0	90	0	63-132	20
1,2-Dichloropropane	10	10	100	10	10	100	0	70-130	20
Dibromochloromethane	10	8.5	85	10	8.6	86	1	63-130	20
1,1,2-Trichloroethane	10	8.1	81	10	8.2	82	1	70-130	20
Tetrachloroethene	10	8.9	89	10	9.0	90	1	70-130	20
Chlorobenzene	10	9.2	92	10	9.4	94	2	75-130	20
Trichlorofluoromethane	10	8.5	85	10	8.4	84	1	62-150	20
1,2-Dichloroethane	10	10	100	10	10	100	0	70-130	20
1,1,1-Trichloroethane	10	9.1	91	10	9.2	92	1	67-130	20
Bromodichloromethane	10	9.1	91	10	9.2	92	1	67-130	20
trans-1,3-Dichloropropene	10	8.4	84	10	8.6	86	2	70-130	20
cis-1,3-Dichloropropene	10	9.4	94	10	9.4	94	0	70-130	20
Bromoform	10	8.1	81	10	7.9	79	3	54-136	20
1,1,2,2-Tetrachloroethane	10	8.1	81	10	8.0	80	1	67-130	20
Benzene	10	9.4	94	10	9.6	96	2	70-130	20
Toluene	10	8.8	88	10	9.1	91	3	70-130	20
Ethylbenzene	10	8.6	86	10	8.8	88	2	70-130	20
Chloromethane	10	10	100	10	10	100	0	64-130	20
Bromomethane	10	3.1	31 Q	10	3.3	33 Q	6	39-139	20
Vinyl chloride	10	9.5	95	10	9.4	94	1	55-140	20
Chloroethane	10	7.1	71	10	8.3	83	16	55-138	20
1,1-Dichloroethene	10	8.6	86	10	8.7	87	1	61-145	20
trans-1,2-Dichloroethene	10	9.0	90	10	9.0	90	0	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2003221-3** Analysis Date : 11/27/24 08:48 File ID : VG241127A02
 LCSD Sample ID : **WG2003221-4** Analysis Date : 11/27/24 09:12 File ID : VG241127A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Trichloroethene	10	8.9	89	10	9.1	91	2	70-130	20
1,2-Dichlorobenzene	10	8.8	88	10	9.0	90	2	70-130	20
1,3-Dichlorobenzene	10	9.0	90	10	9.0	90	0	70-130	20
1,4-Dichlorobenzene	10	8.8	88	10	9.0	90	2	70-130	20
Methyl tert butyl ether	10	7.7	77	10	7.6	76	1	63-130	20
p/m-Xylene	20	17	85	20	18	90	6	70-130	20
o-Xylene	20	17	85	20	18	90	6	70-130	20
cis-1,2-Dichloroethene	10	9.3	93	10	9.3	93	0	70-130	20
Styrene	20	17	85	20	18	90	6	70-130	20
Dichlorodifluoromethane	10	8.2	82	10	8.0	80	2	36-147	20
Acetone	10	8.5	85	10	9.0	90	6	58-148	20
Carbon disulfide	10	9.1	91	10	9.0	90	1	51-130	20
2-Butanone	10	10	100	10	9.3	93	7	63-138	20
4-Methyl-2-pentanone	10	8.1	81	10	7.8	78	4	59-130	20
2-Hexanone	10	8.8	88	10	8.3	83	6	57-130	20
Bromochloromethane	10	9.0	90	10	9.4	94	4	70-130	20
1,2-Dibromoethane	10	8.0	80	10	8.1	81	1	70-130	20
1,2-Dibromo-3-chloropropane	10	7.6	76	10	7.2	72	5	41-144	20
Isopropylbenzene	10	8.3	83	10	8.5	85	2	70-130	20
1,2,3-Trichlorobenzene	10	8.5	85	10	8.7	87	2	70-130	20
1,2,4-Trichlorobenzene	10	8.9	89	10	9.0	90	1	70-130	20
Methyl Acetate	10	9.7	97	10	9.8	98	1	70-130	20
Cyclohexane	10	9.2	92	10	9.1	91	1	70-130	20
1,4-Dioxane	500	380	76	500	370	74	3	56-162	20
Freon-113	10	8.3	83	10	8.3	83	0	70-130	20
Methyl cyclohexane	10	8.0	80	10	8.0	80	0	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2004034-3** Analysis Date : 12/02/24 06:35 File ID : V05241202A01
 LCSD Sample ID : **WG2004034-4** Analysis Date : 12/02/24 07:01 File ID : V05241202A02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	9.8	98	10	9.8	98	0	70-130	20
1,1-Dichloroethane	10	9.6	96	10	9.5	95	1	70-130	20
Chloroform	10	10	100	10	10	100	0	70-130	20
Carbon tetrachloride	10	10	100	10	10	100	0	63-132	20
1,2-Dichloropropane	10	9.2	92	10	9.1	91	1	70-130	20
Dibromochloromethane	10	9.9	99	10	10	100	1	63-130	20
1,1,2-Trichloroethane	10	10	100	10	10	100	0	70-130	20
Tetrachloroethene	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	10	10	100	10	10	100	0	75-130	20
Trichlorofluoromethane	10	10	100	10	8.7	87	14	62-150	20
1,2-Dichloroethane	10	9.6	96	10	9.7	97	1	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	9.8	98	10	10	100	2	67-130	20
trans-1,3-Dichloropropene	10	10	100	10	10	100	0	70-130	20
cis-1,3-Dichloropropene	10	9.8	98	10	9.7	97	1	70-130	20
Bromoform	10	9.5	95	10	9.6	96	1	54-136	20
1,1,2,2-Tetrachloroethane	10	9.6	96	10	9.8	98	2	67-130	20
Benzene	10	10	100	10	10	100	0	70-130	20
Toluene	10	10	100	10	10	100	0	70-130	20
Ethylbenzene	10	10	100	10	10	100	0	70-130	20
Chloromethane	10	8.5	85	10	7.4	74	14	64-130	20
Bromomethane	10	9.0	90	10	7.8	78	14	39-139	20
Vinyl chloride	10	8.7	87	10	7.0	70	22 Q	55-140	20
Chloroethane	10	9.4	94	10	7.6	76	21 Q	55-138	20
1,1-Dichloroethene	10	10	100	10	8.6	86	15	61-145	20
trans-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2004034-3** Analysis Date : 12/02/24 06:35 File ID : V05241202A01
 LCSD Sample ID : **WG2004034-4** Analysis Date : 12/02/24 07:01 File ID : V05241202A02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Trichloroethene	10	10	100	10	10	100	0	70-130	20
1,2-Dichlorobenzene	10	9.7	97	10	8.6	86	12	70-130	20
1,3-Dichlorobenzene	10	9.9	99	10	10	100	1	70-130	20
1,4-Dichlorobenzene	10	9.8	98	10	10	100	2	70-130	20
Methyl tert butyl ether	10	10	100	10	10	100	0	63-130	20
p/m-Xylene	20	21	105	20	20	100	5	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Styrene	20	20	100	20	20	100	0	70-130	20
Dichlorodifluoromethane	10	9.0	90	10	7.5	75	18	36-147	20
Acetone	10	7.9	79	10	7.6	76	4	58-148	20
Carbon disulfide	10	9.8	98	10	8.2	82	18	51-130	20
2-Butanone	10	10	100	10	11	110	10	63-138	20
4-Methyl-2-pentanone	10	8.6	86	10	9.4	94	9	59-130	20
2-Hexanone	10	8.2	82	10	9.0	90	9	57-130	20
Bromochloromethane	10	11	110	10	10	100	10	70-130	20
1,2-Dibromoethane	10	9.8	98	10	10	100	2	70-130	20
1,2-Dibromo-3-chloropropane	10	8.5	85	10	7.7	77	10	41-144	20
Isopropylbenzene	10	9.3	93	10	9.4	94	1	70-130	20
1,2,3-Trichlorobenzene	10	9.3	93	10	8.6	86	8	70-130	20
1,2,4-Trichlorobenzene	10	9.3	93	10	8.5	85	9	70-130	20
Methyl Acetate	10	8.7	87	10	9.2	92	6	70-130	20
Cyclohexane	10	9.1	91	10	9.0	90	1	70-130	20
1,4-Dioxane	500	510	102	500	490	98	4	56-162	20
Freon-113	10	10	100	10	8.6	86	15	70-130	20
Methyl cyclohexane	10	10	100	10	9.9	99	1	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2004084-3** Analysis Date : 11/28/24 02:52 File ID : V05241128A01
 LCSD Sample ID : **WG2004084-4** Analysis Date : 11/28/24 03:18 File ID : V05241128A02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	9.5	95	10	9.6	96	1	70-130	20
1,1-Dichloroethane	10	8.7	87	10	8.8	88	1	70-130	20
Chloroform	10	9.4	94	10	9.5	95	1	70-130	20
Carbon tetrachloride	10	8.6	86	10	8.7	87	1	63-132	20
1,2-Dichloropropane	10	8.6	86	10	8.8	88	2	70-130	20
Dibromochloromethane	10	9.6	96	10	10	100	4	63-130	20
1,1,2-Trichloroethane	10	10	100	10	11	110	10	70-130	20
Tetrachloroethene	10	9.7	97	10	10	100	3	70-130	20
Chlorobenzene	10	10	100	10	10	100	0	75-130	20
Trichlorofluoromethane	10	8.4	84	10	7.6	76	10	62-150	20
1,2-Dichloroethane	10	8.5	85	10	8.7	87	2	70-130	20
1,1,1-Trichloroethane	10	9.1	91	10	9.2	92	1	67-130	20
Bromodichloromethane	10	9.0	90	10	9.2	92	2	67-130	20
trans-1,3-Dichloropropene	10	9.9	99	10	10	100	1	70-130	20
cis-1,3-Dichloropropene	10	9.3	93	10	9.5	95	2	70-130	20
Bromoform	10	9.3	93	10	10	100	7	54-136	20
1,1,2,2-Tetrachloroethane	10	10	100	10	11	110	10	67-130	20
Benzene	10	9.7	97	10	9.8	98	1	70-130	20
Toluene	10	10	100	10	10	100	0	70-130	20
Ethylbenzene	10	9.9	99	10	10	100	1	70-130	20
Chloromethane	10	7.2	72	10	6.2	62 Q	15	64-130	20
Bromomethane	10	7.4	74	10	6.7	67	10	39-139	20
Vinyl chloride	10	7.9	79	10	6.5	65	19	55-140	20
Chloroethane	10	9.2	92	10	7.5	75	20	55-138	20
1,1-Dichloroethene	10	9.6	96	10	9.4	94	2	61-145	20
trans-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : WG2004084-3 Analysis Date : 11/28/24 02:52 File ID : V05241128A01
 LCSD Sample ID : WG2004084-4 Analysis Date : 11/28/24 03:18 File ID : V05241128A02

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Trichloroethene	10	9.0	90	10	9.0	90	0	70-130	20
1,2-Dichlorobenzene	10	9.6	96	10	9.9	99	3	70-130	20
1,3-Dichlorobenzene	10	9.7	97	10	9.7	97	0	70-130	20
1,4-Dichlorobenzene	10	9.7	97	10	9.7	97	0	70-130	20
Methyl tert butyl ether	10	9.9	99	10	10	100	1	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	19	95	20	20	100	5	70-130	20
cis-1,2-Dichloroethene	10	9.9	99	10	10	100	1	70-130	20
Styrene	20	19	95	20	20	100	5	70-130	20
Dichlorodifluoromethane	10	8.4	84	10	7.2	72	15	36-147	20
Acetone	10	8.3	83	10	8.0	80	4	58-148	20
Carbon disulfide	10	9.5	95	10	9.4	94	1	51-130	20
2-Butanone	10	10	100	10	9.7	97	3	63-138	20
4-Methyl-2-pentanone	10	9.3	93	10	9.8	98	5	59-130	20
2-Hexanone	10	9.2	92	10	9.3	93	1	57-130	20
Bromochloromethane	10	10	100	10	10	100	0	70-130	20
1,2-Dibromoethane	10	9.9	99	10	10	100	1	70-130	20
1,2-Dibromo-3-chloropropane	10	8.8	88	10	9.6	96	9	41-144	20
Isopropylbenzene	10	9.4	94	10	11	110	16	70-130	20
1,2,3-Trichlorobenzene	10	9.9	99	10	9.8	98	1	70-130	20
1,2,4-Trichlorobenzene	10	9.6	96	10	9.6	96	0	70-130	20
Methyl Acetate	10	8.3	83	10	8.4	84	1	70-130	20
Cyclohexane	10	8.3	83	10	8.3	83	0	70-130	20
1,4-Dioxane	500	550	110	500	580	116	5	56-162	20
Freon-113	10	9.2	92	10	9.3	93	1	70-130	20
Methyl cyclohexane	10	9.5	95	10	9.7	97	2	70-130	20



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : GONZO
Calibration dates : 10/03/24 04:54 10/03/24 08:54
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21571

Calibration Files

L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D
 L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo		0.157	0.218	0.233	0.237	0.220	0.212	0.211	0.212	12.40
3) TP Chloromethane		0.230	0.237	0.234	0.232	0.226	0.226	0.227	0.230	1.93
4) TP Vinyl chloride	0.222	0.150	0.245	0.250	0.252	0.243	0.235	0.239	0.230	14.55
5) TP Bromomethane		0.146	0.137	0.123	0.122	0.128	0.133	0.137	0.132	6.48
6) TP Chloroethane		0.129	0.141	0.144	0.140	0.104	0.080	0.068	*Q	0.9905
7) TP Trichlorofluor		0.197	0.303	0.331	0.338	0.325	0.321	0.327	0.306	16.09
8) TP Ethyl ether		0.091	0.104	0.112	0.115	0.118	0.120	0.120	0.111	9.70
10) TP 1,1-Dichloroet		0.130	0.177	0.180	0.186	0.187	0.186	0.188	0.176	11.86
11) TP Carbon disulfide		0.384	0.541	0.539	0.556	0.571	0.573	0.586	0.536	12.86
12) TP Freon-113		0.107	0.172	0.197	0.201	0.195	0.189	0.195	0.179	18.56
13) TP Iodomethane		0.246	0.272	0.303	0.325	0.339	0.331	0.332	0.307	11.48
14) TP Acrolein		0.029	0.036	0.029	0.028	0.032	0.029	0.035	0.031	10.04
15) TP Methylene chlo		0.203	0.218	0.208	0.209	0.215	0.216	0.215	0.212	2.51
17) TP Acetone			0.049	0.050	0.055	0.057	0.060	0.058	0.055	8.47
18) TP trans-1,2-Dich		0.130	0.197	0.196	0.200	0.205	0.205	0.206	0.191	14.32
19) TP Methyl acetate		0.136	0.109	0.117	0.124	0.131	0.125	0.129	0.124	7.08
20) TP Methyl tert butyl ether		0.555	0.636	0.627	0.654	0.684	0.683	0.686	0.646	7.28
21) TP tert-Butyl alc		0.019	0.020	0.019	0.020	0.021	0.021	0.021	0.020	5.39
22) TP Diisopropyl ether		0.581	0.689	0.726	0.750	0.774	0.777	0.794	0.727	10.11
23) TP 1,1-Dichloroet		0.260	0.378	0.383	0.391	0.398	0.398	0.383	0.370	13.30
24) TP Halothane		0.105	0.145	0.158	0.165	0.164	0.164	0.164	0.152	14.38
25) TP Acrylonitrile		0.062	0.065	0.064	0.068	0.074	0.074	0.073	0.068	7.48
26) TP Ethyl tert-but		0.565	0.643	0.654	0.701	0.729	0.730	0.747	0.681	9.48
27) TP Vinyl acetate			0.518	0.531	0.513	0.575	0.384	0.592	0.519	14.16
28) TP cis-1,2-Dichlo		0.153	0.230	0.226	0.229	0.236	0.234	0.240	0.221	13.84
29) TP 2,2-Dichloropr		0.189	0.246	0.250	0.263	0.257	0.257	0.260	0.246	10.49
30) TP Bromochloromet		0.089	0.111	0.103	0.103	0.103	0.099	0.098	0.101	6.75
31) TP Cyclohexane		0.242	0.342	0.382	0.395	0.388	0.372	0.390	0.359	15.15
32) TP Chloroform		0.263	0.359	0.362	0.363	0.387	0.386	0.388	0.358	12.32
33) TP Ethyl acetate		0.190	0.173	0.187	0.199	0.213	0.210	0.210	0.197	7.49
34) TP Carbon tetrachloride	0.261	0.168	0.279	0.287	0.300	0.299	0.294	0.296	0.273	16.21
35) TP Tetrahydrofuran		0.067	0.068	0.061	0.060	0.066	0.063	0.062	0.064	5.18
36) S Dibromofluoromethane	0.255	0.248	0.247	0.251	0.247	0.248	0.251	0.249	0.249	1.10
37) TP 1,1,1-Trichlor		0.212	0.316	0.332	0.342	0.340	0.334	0.337	0.316	14.77
39) TP 2-Butanone		0.086	0.065	0.077	0.082	0.092	0.091	0.091	0.084	11.73



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Instrument ID : GONZO Ical Ref : ICAL21571
 Calibration dates : 10/03/24 04:54 10/03/24 08:54

Calibration Files

L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D
 L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
40) TP 1,1-Dichloropr		0.166	0.253	0.284	0.290	0.290	0.286	0.288	0.265	17.20
41) TP Benzene	0.787	0.572	0.815	0.858	0.880	0.901	0.890	0.896	0.825	13.34
42) TP Tertiary-Amyl Methyl Ether		0.473	0.583	0.596	0.618	0.639	0.637	0.643	0.598	9.98
43) S 1,2-Dichloroethane-d4	0.287	0.281	0.283	0.297	0.281	0.281	0.287	0.302	0.287	2.80
44) TP 1,2-Dichloroet		0.244	0.287	0.277	0.284	0.287	0.286	0.290	0.279	5.74
47) TP Methyl cyclohe		0.217	0.282	0.329	0.335	0.321	0.300	0.315	0.300	13.54
48) TP Trichloroethene	0.271	0.156	0.221	0.218	0.227	0.224	0.234	0.220	0.221	14.27
50) TP Dibromomethane		0.103	0.133	0.124	0.127	0.133	0.131	0.131	0.126	8.58
51) TP 1,2-Dichloropr		0.163	0.223	0.215	0.223	0.226	0.223	0.225	0.214	10.72
53) TP 2-Chloroethyl		0.099	0.129	0.126	0.132	0.141	0.139	0.139	0.129	11.23
54) TP Bromodichlorom		0.230	0.282	0.294	0.298	0.308	0.304	0.306	0.289#	9.54
57) TP 1,4-Dioxane		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002#	3.91
58) TP cis-1,3-Dichloropropene	0.325	0.253	0.327	0.331	0.340	0.347	0.346	0.347	0.327	9.52
59) I Chlorobenzene-d5	-----ISTD-----									
60) S Toluene-d8	1.314	1.332	1.318	1.309	1.324	1.310	1.332	1.342	1.323	0.91
61) TP Toluene		0.545	0.718	0.716	0.729	0.729	0.722	0.712	0.696	9.59
62) TP 4-Methyl-2-pen		0.092	0.098	0.091	0.097	0.101	0.102	0.101	0.097	4.39
63) TP Tetrachloroethene		0.237	0.292	0.314	0.322	0.317	0.313	0.311	0.301	9.84
65) TP trans-1,3-Dichloropropene	0.424	0.306	0.394	0.393	0.416	0.431	0.438	0.443	0.406	10.96
67) TP Ethyl methacry		0.274	0.357	0.351	0.369	0.387	0.390	0.392	0.360	11.46
68) TP 1,1,2-Trichlor		0.203	0.212	0.203	0.211	0.217	0.218	0.218	0.212	3.10
69) TP Chlorodibromom		0.212	0.283	0.291	0.307	0.318	0.319	0.319	0.293	13.14
70) TP 1,3-Dichloropr		0.363	0.428	0.417	0.427	0.434	0.435	0.436	0.420	6.16
71) TP 1,2-Dibromoethane		0.210	0.250	0.251	0.256	0.262	0.263	0.262	0.250	7.43
72) TP 2-Hexanone		0.138	0.170	0.162	0.179	0.188	0.193	0.191	0.174	11.34
73) TP Chlorobenzene		0.544	0.761	0.763	0.773	0.796	0.798	0.800	0.748	12.24
74) TP Ethylbenzene		0.993	1.323	1.332	1.384	1.434	1.441	1.455	1.337	12.01
75) TP 1,1,1,2-Tetrac		0.212	0.277	0.287	0.300	0.309	0.309	0.311	0.287	12.36
76) TP p/m Xylene		0.357	0.511	0.520	0.536	0.544	0.543	0.551	0.509	13.45
77) TP o Xylene		0.339	0.493	0.505	0.523	0.528	0.531	0.531	0.493	14.07
78) TP Styrene		0.581	0.817	0.859	0.898	0.938	0.938		0.839	16.08
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80) TP Bromoform		0.246	0.325	0.343	0.386	0.410	0.408	0.398	0.359	16.63
82) TP Isopropylbenzene		1.496	2.138	2.263	2.364	2.426	2.386	2.401	2.211	14.95
83) S 4-Bromofluorobenzene	0.890	0.884	0.867	0.856	0.865	0.885	0.880	0.885	0.876	1.38
84) TP Bromobenzene		0.450	0.629	0.619	0.628	0.632	0.623	0.609	0.598	11.01



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : GONZO
 Calibration dates : 10/03/24 04:54 10/03/24 08:54

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21571

Calibration Files

L11 =VG241003A03.D L1 =VG241003A05.D L2 =VG241003A07.D L3 =VG241003A09.D L4 =VG241003A10.D
 L6 =VG241003A11.D L8 =VG241003A12.D L10 =VG241003A13.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
85) TP n-Propylbenzene	1.734	2.567	2.600	2.741	2.849	2.792	2.737	2.574	14.90	
86) TP 1,4-Dichlorobu	0.759	0.814	0.832	0.881	0.934	0.936	0.936	0.870	8.08	
87) TP 1,1,2,2-Tetrac	0.491	0.558	0.544	0.567	0.604	0.552	0.601	0.560	6.83	
88) TP 4-Ethyltoluene	1.451	2.043	2.136	2.236	2.319	2.282	2.287	2.108	14.48	
89) TP 2-Chlorotoluene	1.097	1.560	1.551	1.646	1.709	1.691	1.737	1.570	14.05	
90) TP 1,3,5-Trimethy	1.387	1.807	1.888	1.984	2.020	1.986	1.991	1.866	12.01	
91) TP 1,2,3-Trichlor	0.385	0.442	0.437	0.475	0.497	0.491	0.473	0.457	8.55	
92) TP trans-1,4-Dich	0.152	0.172	0.173	0.187	0.202	0.204	0.202	0.184	10.76	
93) TP 4-Chlorotoluene	1.185	1.606	1.676	1.722	1.796	1.780	1.804	1.653	13.20	
94) TP tert-Butylbenzene	1.012	1.470	1.521	1.575	1.586	1.570	1.568	1.472	14.04	
97) TP 1,2,4-Trimethy	1.310	1.783	1.824	1.912	1.971	1.963	1.984	1.821	13.07	
98) TP sec-Butylbenzene	1.410	2.016	2.190	2.310	2.335	2.303	2.298	2.123	15.70	
99) TP p-Isopropyltol	1.252	1.735	1.852	1.911	1.953	1.940	1.962	1.801	14.14	
100) TP 1,3-Dichlorobe	0.838	1.090	1.087	1.145	1.166	1.145	1.158	1.090	10.59	
101) TP 1,4-Dichlorobe	0.928	1.180	1.126	1.163	1.183	1.162	1.183	1.132	8.15	
102) TP p-Diethylbenzene	0.682	0.978	1.024	1.066	1.110	1.095	1.116	1.010	15.14	
103) TP n-Butylbenzene	0.998	1.315	1.475	1.522	1.613	1.594	1.633	1.450	15.65	
104) TP 1,2-Dichlorobe	0.792	1.071	1.077	1.089	1.116	1.097	1.115	1.051	11.00	
105) TP 1,2,4,5-Tetram	1.021	1.340	1.393	1.455	1.548	1.572	1.615	1.421	14.22	
106) TP 1,2-Dibromo-3-	0.083	0.086	0.087	0.095	0.099	0.103	0.099	0.093	8.28	
107) TP 1,3,5-Trichlor	0.504	0.656	0.671	0.706	0.714	0.699	0.679	0.661	10.95	
108) TP Hexachlorobuta	0.171	0.195	0.211	0.226	0.236	0.226	0.222	0.212	10.54	
109) TP 1,2,4-Trichlor	0.406	0.534	0.574	0.603	0.626	0.604	0.581	0.561	13.27	
110) TP Naphthalene	0.884	1.087	1.139	1.229	1.333	1.340	1.307	1.188	13.93	
111) TP 1,2,3-Trichlor	0.370	0.449	0.476	0.502	0.524	0.503	0.463	0.469	10.85	

Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : VOA105
Calibration dates : 11/06/24 04:25 11/06/24 08:40
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21671

Calibration Files

L11 =V05241106A03.D L1 =V05241106A05.D L2 =V05241106A07.D L3 =V05241106A09.D L4 =V05241106A10.D
 L6 =V05241106A11.D L8 =V05241106A12.D L10 =V05241106A13.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo		0.257	0.348	0.339	0.352	0.349	0.339	0.321	0.329	10.18
3) TP Chloromethane		0.368	0.453	0.465	0.475	0.477	0.478	0.478	0.456	8.76
4) TP Vinyl chloride	0.362	0.297	0.402	0.397	0.415	0.422	0.410	0.395	0.388	10.56
5) TP Bromomethane		0.057	0.058	0.069	0.080	0.097	0.114	0.129	*Q	0.9990
6) TP Chloroethane		0.175	0.205	0.192	0.207	0.188	0.183	0.171	0.189	7.31
7) TP Trichlorofluor		0.303	0.396	0.390	0.427	0.401	0.393	0.375	0.384	10.17
8) TP Ethyl ether		0.078	0.084	0.088	0.093	0.085	0.089	0.085	0.086	5.32
10) TP 1,1-Dichloroet		0.164	0.202	0.190	0.194	0.194	0.195	0.189	0.190	6.33
11) TP Carbon disulfide		0.523	0.624	0.607	0.632	0.643	0.647	0.633	0.616	6.95
12) TP Freon-113		0.156	0.221	0.214	0.219	0.216	0.215	0.205	0.207	11.05
14) TP Acrolein		0.049	0.031	0.037	0.038	0.038	0.036	0.034	0.038	15.09
15) TP Methylene chlo		0.285	0.258	0.244	0.237	0.231	0.229	0.226	0.244	8.61
17) TP Acetone		0.099	0.063	0.065	0.061	0.065	0.069	0.063	0.069	19.45
18) TP trans-1,2-Dich		0.203	0.240	0.246	0.247	0.240	0.233	0.230	0.234	6.49
19) TP Methyl acetate			0.143	0.168	0.180	0.181	0.177	0.160	0.168	8.83
20) TP Methyl tert butyl ether		0.449	0.481	0.528	0.523	0.517	0.515	0.500	0.502	5.64
21) TP tert-Butyl alc		0.014	0.015	0.016	0.016	0.017	0.017	0.015	0.016	5.55
22) TP Diisopropyl ether		1.150	1.315	1.451	1.467	1.438	1.392	1.306	1.360	8.28
23) TP 1,1-Dichloroet		0.544	0.620	0.620	0.622	0.601	0.586	0.571	0.595	4.93
24) TP Halothane		0.157	0.188	0.194	0.198	0.193	0.189	0.186	0.186	7.33
25) TP Acrylonitrile			0.090	0.096	0.094	0.095	0.095	0.088	0.093	3.30
26) TP Ethyl tert-but		0.807	0.912	1.023	1.021	1.011	1.006	0.964	0.963	8.28
27) TP Vinyl acetate		0.531	0.615	0.740	0.797	0.855	0.837	0.754	0.733	16.25
28) TP cis-1,2-Dichlo		0.216	0.280	0.273	0.273	0.263	0.258	0.254	0.259	8.20
29) TP 2,2-Dichloropr		0.311	0.388	0.390	0.397	0.388	0.378	0.371	0.375	7.87
30) TP Bromochloromet		0.109	0.124	0.126	0.119	0.107	0.105	0.102	0.113	8.44
31) TP Cyclohexane		0.658	0.819	0.831	0.836	0.814	0.791	0.753	0.786	8.02
32) TP Chloroform		0.394	0.436	0.446	0.437	0.430	0.420	0.415	0.426	4.07
33) TP Ethyl acetate		0.152	0.220	0.256	0.272	0.276	0.276	0.254	0.244	18.43
34) TP Carbon tetrachloride	0.330	0.290	0.364	0.387	0.391	0.402	0.393	0.387	0.368	10.56
35) TP Tetrahydrofuran		0.092	0.069	0.076	0.077	0.076	0.087	0.067	0.078	11.85
36) S Dibromofluoromethane	0.267	0.263	0.265	0.257	0.257	0.252	0.253	0.248	0.258	2.65
37) TP 1,1,1-Trichlor		0.333	0.408	0.419	0.424	0.417	0.405	0.398	0.401	7.74
39) TP 2-Butanone			0.078	0.110	0.113	0.119	0.117	0.106	0.107	14.18
40) TP 1,1-Dichloropr		0.290	0.344	0.356	0.358	0.356	0.350	0.343	0.343	7.03



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Instrument ID : VOA105 Ical Ref : ICAL21671
 Calibration dates : 11/06/24 04:25 11/06/24 08:40

Calibration Files

L11 =V05241106A03.D L1 =V05241106A05.D L2 =V05241106A07.D L3 =V05241106A09.D L4 =V05241106A10.D
 L6 =V05241106A11.D L8 =V05241106A12.D L10 =V05241106A13.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
41) TP Benzene	0.871	0.871	0.968	1.015	1.014	1.004	0.993	0.977	0.964	6.20
42) TP Tertiary-Amyl Methyl Ether		0.480	0.506	0.569	0.569	0.577	0.580	0.565	0.550	7.18
43) S 1,2-Dichloroethane-d4	0.342	0.343	0.345	0.354	0.337	0.328	0.334	0.333	0.340	2.44
44) TP 1,2-Dichloroet		0.354	0.394	0.405	0.394	0.388	0.380	0.363	0.383	4.78
47) TP Methyl cyclohe		0.325	0.414	0.451	0.460	0.456	0.452	0.435	0.428	11.19
48) TP Trichloroethene	0.324	0.217	0.273	0.261	0.268	0.264	0.257	0.253	0.265	11.10
50) TP Dibromomethane		0.121	0.124	0.136	0.133	0.132	0.133	0.129	0.130	3.96
51) TP 1,2-Dichloropr		0.288	0.325	0.339	0.346	0.342	0.337	0.331	0.330	5.93
53) TP 2-Chloroethyl		0.106	0.131	0.167	0.169	0.165	0.166	0.157	0.152	15.80
54) TP Bromodichlorom		0.268	0.310	0.333	0.336	0.337	0.334	0.328	0.321	7.85
57) TP 1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	6.39
58) TP cis-1,3-Dichloropropene	0.301	0.299	0.353	0.383	0.396	0.401	0.399	0.393	0.365	11.87
59) I Chlorobenzene-d5	-----ISTD-----									
60) S Toluene-d8	1.240	1.246	1.247	1.265	1.271	1.249	1.251	1.259	1.253	0.83
61) TP Toluene		0.663	0.809	0.839	0.840	0.812	0.811	0.801	0.796	7.62
62) TP 4-Methyl-2-pen		0.070	0.087	0.115	0.112	0.115	0.116	0.110	0.104	17.19
63) TP Tetrachloroethene		0.284	0.339	0.369	0.372	0.363	0.360	0.357	0.349	8.78
65) TP trans-1,3-Dichloropropene	0.275	0.317	0.351	0.422	0.442	0.434	0.437	0.424	0.388	16.61
67) TP Ethyl methacry		0.164	0.233	0.279	0.280	0.274	0.281	0.270	0.255	17.06
68) TP 1,1,2-Trichlor		0.145	0.178	0.201	0.197	0.190	0.191	0.185	0.184#	10.09
69) TP Chlorodibromom		0.206	0.254	0.313	0.314	0.315	0.318	0.313	0.290	14.98
70) TP 1,3-Dichloropr		0.351	0.397	0.433	0.424	0.413	0.414	0.402	0.405	6.59
71) TP 1,2-Dibromoethane		0.176	0.212	0.243	0.243	0.241	0.243	0.236	0.228	11.15
72) TP 2-Hexanone		0.134	0.150	0.205	0.209	0.212	0.215	0.198	0.189	17.40
73) TP Chlorobenzene		0.752	0.866	0.909	0.901	0.875	0.872	0.862	0.862	6.00
74) TP Ethylbenzene		1.360	1.599	1.680	1.680	1.619	1.604	1.561	1.586	6.85
75) TP 1,1,1,2-Tetrac		0.252	0.273	0.323	0.323	0.320	0.318	0.313	0.303	9.43
76) TP p/m Xylene		0.498	0.609	0.641	0.638	0.622	0.613	0.589	0.601	8.16
77) TP o Xylene		0.489	0.583	0.609	0.607	0.587	0.585	0.566	0.575	7.08
78) TP Styrene		0.776	0.932	0.990	0.991	0.963	0.952	0.901	0.929	8.05
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80) TP Bromoform		0.187	0.242	0.307	0.322	0.333	0.343	0.339	0.296	19.91
82) TP Isopropylbenzene		2.528	3.072	3.248	3.254	3.228	3.235	3.217	3.112	8.51
83) S 4-Bromofluorobenzene	0.897	0.890	0.890	0.917	0.908	0.918	0.929	0.929	0.910	1.77
84) TP Bromobenzene		0.541	0.682	0.710	0.688	0.692	0.699	0.694	0.672	8.69
85) TP n-Propylbenzene		2.842	3.588	3.771	3.748	3.770	3.741	3.547	3.572	9.37



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : VOA105
Calibration dates : 11/06/24 04:25 11/06/24 08:40
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21671

Calibration Files

L11 =V05241106A03.D L1 =V05241106A05.D L2 =V05241106A07.D L3 =V05241106A09.D L4 =V05241106A10.D
 L6 =V05241106A11.D L8 =V05241106A12.D L10 =V05241106A13.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
86) TP 1,4-Dichlorobu	1.063	1.087	1.248	1.201	1.209	1.211	1.160	1.168	5.91	
87) TP 1,1,2,2-Tetrac	0.433	0.447	0.511	0.499	0.509	0.518	0.503	0.489	6.97	
88) TP 4-Ethyltoluene	2.364	2.926	3.086	3.073	3.065	3.071	3.014	2.943	8.87	
89) TP 2-Chlorotoluene	1.788	2.048	2.104	2.063	2.085	2.087	2.080	2.037	5.45	
90) TP 1,3,5-Trimethy	2.090	2.628	2.695	2.683	2.641	2.624	2.574	2.562	8.28	
91) TP 1,2,3-Trichlor	0.380	0.375	0.417	0.408	0.410	0.416	0.399	0.401	4.25	
92) TP trans-1,4-Dich	0.156	0.190	0.226	0.237	0.233	0.233	0.231	0.215	14.22	
93) TP 4-Chlorotoluene	1.896	2.117	2.227	2.157	2.168	2.169	2.166	2.129	5.05	
94) TP tert-Butylbenzene	1.811	2.228	2.335	2.344	2.366	2.362	2.329	2.253	8.91	
97) TP 1,2,4-Trimethy	1.970	2.421	2.605	2.598	2.588	2.551	2.520	2.465	9.23	
98) TP sec-Butylbenzene	2.563	3.244	3.380	3.367	3.411	3.366	3.186	3.217	9.31	
99) TP p-Isopropyltol	2.191	2.798	2.971	2.952	2.964	2.923	2.834	2.805	9.95	
100) TP 1,3-Dichlorobe	1.176	1.283	1.386	1.357	1.357	1.354	1.334	1.321	5.40	
101) TP 1,4-Dichlorobe	1.140	1.371	1.381	1.343	1.348	1.339	1.317	1.320	6.23	
102) TP p-Diethylbenzene	1.257	1.563	1.704	1.710	1.727	1.722	1.693	1.625	10.57	
103) TP n-Butylbenzene	1.752	2.225	2.376	2.433	2.419	2.409	2.329	2.277	10.64	
104) TP 1,2-Dichlorobe	1.030	1.192	1.257	1.214	1.232	1.218	1.195	1.191	6.25	
105) TP 1,2,4,5-Tetram	1.851	2.212	2.445	2.505	2.548	2.510	2.445	2.359	10.58	
106) TP 1,2-Dibromo-3-	0.043	0.056	0.073	0.076	0.082	0.082	0.079	*L	0.9993	
107) TP 1,3,5-Trichlor	0.735	0.840	0.937	0.928	0.933	0.927	0.892	0.885	8.41	
108) TP Hexachlorobuta	0.262	0.313	0.330	0.334	0.347	0.349	0.340	0.325	9.28	
109) TP 1,2,4-Trichlor	0.578	0.714	0.793	0.802	0.805	0.803	0.771	0.752	11.08	
110) TP Naphthalene	1.376	1.519	1.763	1.768	1.777	1.783	1.688	1.668	9.55	
111) TP 1,2,3-Trichlor	0.514	0.584	0.674	0.673	0.675	0.674	0.647	0.635	9.87	

Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : GONZO
 Lab File ID : VG241127A02
 Sample No : WG2003221-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 08:48
 Init. Calib. Date(s) : 10/03/24 10/03/24
 Init. Calib. Times : 04:54 08:54

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	92	0
Dichlorodifluoromethane	0.212	0.173	-	18.4	20	69	0
Chloromethane	0.23	0.229	-	0.4	20	90	0
Vinyl chloride	0.23	0.217	-	5.7	20	80	0
Bromomethane	0.132	0.041	-	68.9*	20	31	0
Chloroethane	10	7.131	-	28.7*	20	60	0
Trichlorofluoromethane	0.306	0.259	-	15.4	20	72	0
Ethyl ether	0.111	0.094	-	15.3	20	78	0
1,1-Dichloroethene	0.176	0.151	-	14.2	20	77	0
Carbon disulfide	0.536	0.485	-	9.5	20	83	0
Freon-113	0.179	0.149	-	16.8	20	69	0
Acrolein	0.031	0.031	-	0	20	99	0
Methylene chloride	0.212	0.192	-	9.4	20	85	0
Acetone	0.055	0.047	-	14.5	20	87	0
trans-1,2-Dichloroethene	0.191	0.172	-	9.9	20	81	0
Methyl acetate	0.124	0.12	-	3.2	20	95	0
Methyl tert-butyl ether	0.646	0.496	-	23.2*	20	73	0
tert-Butyl alcohol	0.02	0.016	-	20	20	77	0
Diisopropyl ether	0.727	0.81	-	-11.4	20	103	0
1,1-Dichloroethane	0.37	0.376	-	-1.6	20	91	0
Halothane	0.152	0.135	-	11.2	20	79	0
Acrylonitrile	0.068	0.062	-	8.8	20	89	0
Ethyl tert-butyl ether	0.681	0.649	-	4.7	20	92	0
Vinyl acetate	0.519	0.526	-	-1.3	20	91	0
cis-1,2-Dichloroethene	0.221	0.205	-	7.2	20	84	0
2,2-Dichloropropane	0.246	0.266	-	-8.1	20	98	0
Bromochloromethane	0.101	0.091*	-	9.9	20	81	0
Cyclohexane	0.359	0.331	-	7.8	20	80	-.02
Chloroform	0.358	0.327	-	8.7	20	83	0
Ethyl acetate	0.197	0.197	-	0	20	97	0
Carbon tetrachloride	0.273	0.246	-	9.9	20	79	0
Tetrahydrofuran	0.064	0.063	-	1.6	20	95	0
Dibromofluoromethane	0.249	0.259	-	-4	20	95	0
1,1,1-Trichloroethane	0.316	0.287	-	9.2	20	80	0
2-Butanone	0.084	0.088	-	-4.8	20	105	0
1,1-Dichloropropene	0.265	0.243	-	8.3	20	79	0
Benzene	0.825	0.777	-	5.8	20	84	0
tert-Amyl methyl ether	0.598	0.489	-	18.2	20	76	0
1,2-Dichloroethane-d4	0.287	0.319	-	-11.1	20	99	0
1,2-Dichloroethane	0.279	0.285	-	-2.2	20	95	0
Methyl cyclohexane	0.3	0.239	-	20.3*	20	67	-.02
Trichloroethene	0.221	0.197*	-	10.9	20	84	0
Dibromomethane	0.126	0.114	-	9.5	20	85	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : GONZO
 Lab File ID : VG241127A02
 Sample No : WG2003221-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 08:48
 Init. Calib. Date(s) : 10/03/24 10/03/24
 Init. Calib. Times : 04:54 08:54

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.214	0.215	-	-0.5	20	92	0
Bromodichloromethane	0.289	0.262*	-	9.3	20	82	0
1,4-Dioxane	0.00215	0.00164*	-	23.7*	20	74	0
cis-1,3-Dichloropropene	0.327	0.307	-	6.1	20	86	0
Chlorobenzene-d5	1	1	-	0	20	99	0
Toluene-d8	1.323	1.259	-	4.8	20	95	0
Toluene	0.696	0.612	-	12.1	20	84	0
4-Methyl-2-pentanone	0.097	0.079	-	18.6	20	86	0
Tetrachloroethene	0.301	0.267	-	11.3	20	84	0
trans-1,3-Dichloropropene	0.406	0.34	-	16.3	20	85	0
Ethyl methacrylate	0.36	0.25	-	30.6*	20	70	0
1,1,2-Trichloroethane	0.212	0.172*	-	18.9	20	83	0
Chlorodibromomethane	0.293	0.249	-	15	20	84	0
1,3-Dichloropropane	0.42	0.365	-	13.1	20	86	0
1,2-Dibromoethane	0.25	0.2	-	20	20	79	0
2-Hexanone	0.174	0.153	-	12.1	20	93	0
Chlorobenzene	0.748	0.69	-	7.8	20	89	0
Ethylbenzene	1.337	1.153	-	13.8	20	85	0
1,1,1,2-Tetrachloroethane	0.287	0.241	-	16	20	82	0
p/m Xylene	0.509	0.44	-	13.6	20	83	0
o Xylene	0.493	0.428	-	13.2	20	84	-.02
Styrene	0.839	0.729	-	13.1	20	84	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	100	0
Bromoform	0.359	0.29	-	19.2	20	84	0
Isopropylbenzene	2.211	1.842	-	16.7	20	81	0
4-Bromofluorobenzene	0.876	0.846	-	3.4	20	98	0
Bromobenzene	0.598	0.553	-	7.5	20	89	0
n-Propylbenzene	2.574	2.204	-	14.4	20	84	0
1,4-Dichlorobutane	0.87	0.735	-	15.5	20	88	0
1,1,2,2-Tetrachloroethane	0.56	0.456	-	18.6	20	84	0
4-Ethyltoluene	2.108	1.799	-	14.7	20	84	0
2-Chlorotoluene	1.57	1.384	-	11.8	20	89	0
1,3,5-Trimethylbenzene	1.866	1.592	-	14.7	20	84	0
1,2,3-Trichloropropane	0.457	0.378	-	17.3	20	86	0
trans-1,4-Dichloro-2-buten	0.184	0.123	-	33.2*	20	71	0
4-Chlorotoluene	1.653	1.457	-	11.9	20	87	0
tert-Butylbenzene	1.472	1.269	-	13.8	20	83	0
1,2,4-Trimethylbenzene	1.821	1.524	-	16.3	20	83	0
sec-Butylbenzene	2.123	1.735	-	18.3	20	79	0
p-Isopropyltoluene	1.801	1.538	-	14.6	20	83	0
1,3-Dichlorobenzene	1.09	0.982	-	9.9	20	90	0
1,4-Dichlorobenzene	1.132	0.994	-	12.2	20	88	0
p-Diethylbenzene	1.01	0.84	-	16.8	20	82	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : GONZO
 Lab File ID : VG241127A02
 Sample No : WG2003221-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 08:48
 Init. Calib. Date(s) : 10/03/24 10/03/24
 Init. Calib. Times : 04:54 08:54

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.45	1.205	-	16.9	20	81	0
1,2-Dichlorobenzene	1.051	0.928	-	11.7	20	86	0
1,2,4,5-Tetramethylbenzene	1.421	1.213	-	14.6	20	87	0
1,2-Dibromo-3-chloropropan	0.093	0.071	-	23.7*	20	81	0
1,3,5-Trichlorobenzene	0.661	0.612	-	7.4	20	91	0
Hexachlorobutadiene	0.212	0.188	-	11.3	20	89	0
1,2,4-Trichlorobenzene	0.561	0.499	-	11.1	20	87	0
Naphthalene	1.188	0.913	-	23.1*	20	80	0
1,2,3-Trichlorobenzene	0.469	0.398*	-	15.1	20	83	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA105
 Lab File ID : V05241128A01
 Sample No : WG2004084-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/28/24 02:52
 Init. Calib. Date(s) : 11/06/24 11/06/24
 Init. Calib. Times : 04:25 08:40

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	103	0
Dichlorodifluoromethane	0.329	0.278	-	15.5	20	85	0
Chloromethane	0.456	0.328	-	28.1*	20	73	0
Vinyl chloride	0.388	0.308	-	20.6*	20	80	0
Bromomethane	10	7.429	-	25.7*	20	84	0
Chloroethane	0.189	0.175	-	7.4	20	94	0
Trichlorofluoromethane	0.384	0.321	-	16.4	20	85	-.01
Ethyl ether	0.086	0.087	-	-1.2	20	102	0
1,1-Dichloroethene	0.19	0.182	-	4.2	20	99	0
Carbon disulfide	0.616	0.586	-	4.9	20	100	0
Freon-113	0.207	0.191	-	7.7	20	92	0
Acrolein	0.038	0.048	-	-26.3*	20	135	0
Methylene chloride	0.244	0.233	-	4.5	20	98	0
Acetone	0.069	0.058	-	15.9	20	92	0
trans-1,2-Dichloroethene	0.234	0.236	-	-0.9	20	99	0
Methyl acetate	0.168	0.139	-	17.3	20	86	0
Methyl tert-butyl ether	0.502	0.498	-	0.8	20	97	0
tert-Butyl alcohol	0.016	0.016	-	0	20	100	0
Diisopropyl ether	1.36	1.088	-	20	20	77	0
1,1-Dichloroethane	0.595	0.52	-	12.6	20	87	0
Halothane	0.186	0.181	-	2.7	20	97	0
Acrylonitrile	0.093	0.079	-	15.1	20	84	0
Ethyl tert-butyl ether	0.963	0.809	-	16	20	82	0
Vinyl acetate	0.733	0.605	-	17.5	20	84	0
cis-1,2-Dichloroethene	0.259	0.257	-	0.8	20	97	0
2,2-Dichloropropane	0.375	0.355	-	5.3	20	94	0
Bromochloromethane	0.113	0.114	-	-0.9	20	94	0
Cyclohexane	0.786	0.649	-	17.4	20	81	0
Chloroform	0.426	0.4	-	6.1	20	93	0
Ethyl acetate	0.244	0.212	-	13.1	20	85	0
Carbon tetrachloride	0.368	0.316	-	14.1	20	84	0
Tetrahydrofuran	0.078	0.077	-	1.3	20	105	0
Dibromofluoromethane	0.258	0.256	-	0.8	20	103	0
1,1,1-Trichloroethane	0.401	0.363	-	9.5	20	89	0
2-Butanone	0.107	0.107	-	0	20	100	-.01
1,1-Dichloropropene	0.343	0.322	-	6.1	20	93	-.01
Benzene	0.964	0.934	-	3.1	20	95	0
tert-Amyl methyl ether	0.55	0.494	-	10.2	20	90	0
1,2-Dichloroethane-d4	0.34	0.324	-	4.7	20	94	0
1,2-Dichloroethane	0.383	0.324	-	15.4	20	82	0
Methyl cyclohexane	0.428	0.408	-	4.7	20	93	-.01
Trichloroethene	0.265	0.239	-	9.8	20	94	0
Dibromomethane	0.13	0.121	-	6.9	20	92	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA105
 Lab File ID : V05241128A01
 Sample No : WG2004084-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/28/24 02:52
 Init. Calib. Date(s) : 11/06/24 11/06/24
 Init. Calib. Times : 04:25 08:40

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.33	0.284	-	13.9	20	86	0
Bromodichloromethane	0.321	0.288*	-	10.3	20	89	0
1,4-Dioxane	0.0012	0.00133*	-	-10.8	20	114	0
cis-1,3-Dichloropropene	0.365	0.341	-	6.6	20	92	0
Chlorobenzene-d5	1	1	-	0	20	99	0
Toluene-d8	1.253	1.307	-	-4.3	20	103	0
Toluene	0.796	0.799	-	-0.4	20	95	0
4-Methyl-2-pentanone	0.104	0.096	-	7.7	20	83	0
Tetrachloroethene	0.349	0.339	-	2.9	20	91	0
trans-1,3-Dichloropropene	0.388	0.384	-	1	20	91	0
Ethyl methacrylate	0.255	0.264	-	-3.5	20	94	0
1,1,2-Trichloroethane	0.184	0.192*	-	-4.3	20	95	0
Chlorodibromomethane	0.29	0.279	-	3.8	20	89	0
1,3-Dichloropropane	0.405	0.405	-	0	20	93	0
1,2-Dibromoethane	0.228	0.225	-	1.3	20	92	0
2-Hexanone	0.189	0.173	-	8.5	20	84	0
Chlorobenzene	0.862	0.874	-	-1.4	20	96	0
Ethylbenzene	1.586	1.57	-	1	20	93	0
1,1,1,2-Tetrachloroethane	0.303	0.286	-	5.6	20	88	0
p/m Xylene	0.601	0.587	-	2.3	20	91	0
o Xylene	0.575	0.558	-	3	20	91	0
Styrene	0.929	0.906	-	2.5	20	91	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	101	0
Bromoform	0.296	0.275	-	7.1	20	90	0
Isopropylbenzene	3.112	2.923	-	6.1	20	91	0
4-Bromofluorobenzene	0.91	0.909	-	0.1	20	100	0
Bromobenzene	0.672	0.648	-	3.6	20	92	0
n-Propylbenzene	3.572	3.461	-	3.1	20	92	0
1,4-Dichlorobutane	1.168	1.004	-	14	20	81	0
1,1,2,2-Tetrachloroethane	0.489	0.489	-	0	20	96	0
4-Ethyltoluene	2.943	2.783	-	5.4	20	91	-.01
2-Chlorotoluene	2.037	1.923	-	5.6	20	92	0
1,3,5-Trimethylbenzene	2.562	2.365	-	7.7	20	88	0
1,2,3-Trichloropropane	0.401	0.378	-	5.7	20	91	0
trans-1,4-Dichloro-2-buten	0.215	0.179	-	16.7	20	79	0
4-Chlorotoluene	2.129	2.011	-	5.5	20	91	0
tert-Butylbenzene	2.253	2.101	-	6.7	20	91	0
1,2,4-Trimethylbenzene	2.465	2.27	-	7.9	20	88	0
sec-Butylbenzene	3.217	3.046	-	5.3	20	91	0
p-Isopropyltoluene	2.805	2.668	-	4.9	20	90	0
1,3-Dichlorobenzene	1.321	1.284	-	2.8	20	93	0
1,4-Dichlorobenzene	1.32	1.28	-	3	20	93	0
p-Diethylbenzene	1.625	1.508	-	7.2	20	89	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA105
 Lab File ID : V05241128A01
 Sample No : WG2004084-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/28/24 02:52
 Init. Calib. Date(s) : 11/06/24 11/06/24
 Init. Calib. Times : 04:25 08:40

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	2.277	2.27	-	0.3	20	96	0
1,2-Dichlorobenzene	1.191	1.149	-	3.5	20	92	0
1,2,4,5-Tetramethylbenzene	2.359	2.17	-	8	20	89	0
1,2-Dibromo-3-chloropropan	10	8.794	-	12.1	20	93	0
1,3,5-Trichlorobenzene	0.885	0.834	-	5.8	20	90	0
Hexachlorobutadiene	0.325	0.294	-	9.5	20	90	0
1,2,4-Trichlorobenzene	0.752	0.721	-	4.1	20	91	0
Naphthalene	1.668	1.672	-	-0.2	20	95	0
1,2,3-Trichlorobenzene	0.635	0.63	-	0.8	20	94	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA105
 Lab File ID : V05241202A01
 Sample No : WG2004034-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 12/02/24 06:35
 Init. Calib. Date(s) : 11/06/24 11/06/24
 Init. Calib. Times : 04:25 08:40

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	72	0
Dichlorodifluoromethane	0.329	0.297	-	9.7	20	63	0
Chloromethane	0.456	0.388	-	14.9	20	60	0
Vinyl chloride	0.388	0.336	-	13.4	20	61	0
Bromomethane	10	9.053	-	9.5	20	73	0
Chloroethane	0.189	0.179	-	5.3	20	67	0
Trichlorofluoromethane	0.384	0.383	-	0.3	20	71	-.01
Ethyl ether	0.086	0.081	-	5.8	20	67	0
1,1-Dichloroethene	0.19	0.191	-	-0.5	20	73	0
Carbon disulfide	0.616	0.601	-	2.4	20	72	0
Freon-113	0.207	0.209	-	-1	20	71	0
Acrolein	0.038	0.048	-	-26.3*	20	95	0
Methylene chloride	0.244	0.241	-	1.2	20	71	0
Acetone	0.069	0.054	-	21.7*	20	61	0
trans-1,2-Dichloroethene	0.234	0.247	-	-5.6	20	73	0
Methyl acetate	0.168	0.147	-	12.5	20	63	-.01
Methyl tert-butyl ether	0.502	0.509	-	-1.4	20	70	0
tert-Butyl alcohol	0.016	0.014	-	12.5	20	64	0
Diisopropyl ether	1.36	1.194	-	12.2	20	60	0
1,1-Dichloroethane	0.595	0.568	-	4.5	20	66	0
Halothane	0.186	0.185	-	0.5	20	69	0
Acrylonitrile	0.093	0.083	-	10.8	20	63	0
Ethyl tert-butyl ether	0.963	0.864	-	10.3	20	61	0
Vinyl acetate	0.733	0.615	-	16.1	20	60	0
cis-1,2-Dichloroethene	0.259	0.27	-	-4.2	20	72	0
2,2-Dichloropropane	0.375	0.393	-	-4.8	20	73	0
Bromochloromethane	0.113	0.124	-	-9.7	20	72	0
Cyclohexane	0.786	0.718	-	8.7	20	63	0
Chloroform	0.426	0.432	-	-1.4	20	70	0
Ethyl acetate	0.244	0.223	-	8.6	20	63	0
Carbon tetrachloride	0.368	0.373	-	-1.4	20	70	0
Tetrahydrofuran	0.078	0.073	-	6.4	20	70	0
Dibromofluoromethane	0.258	0.274	-	-6.2	20	77	-.01
1,1,1-Trichloroethane	0.401	0.409	-	-2	20	71	0
2-Butanone	0.107	0.107	-	0	20	71	-.01
1,1-Dichloropropene	0.343	0.347	-	-1.2	20	71	0
Benzene	0.964	0.984	-	-2.1	20	70	0
tert-Amyl methyl ether	0.55	0.499	-	9.3	20	64	0
1,2-Dichloroethane-d4	0.34	0.354	-	-4.1	20	72	0
1,2-Dichloroethane	0.383	0.368	-	3.9	20	66	0
Methyl cyclohexane	0.428	0.429	-	-0.2	20	69	-.01
Trichloroethene	0.265	0.263	-	0.8	20	73	0
Dibromomethane	0.13	0.127	-	2.3	20	68	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA105
 Lab File ID : V05241202A01
 Sample No : WG2004034-2
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 12/02/24 06:35
 Init. Calib. Date(s) : 11/06/24 11/06/24
 Init. Calib. Times : 04:25 08:40

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.33	0.304	-	7.9	20	65	0
Bromodichloromethane	0.321	0.314	-	2.2	20	68	0
1,4-Dioxane	0.0012	0.00122*	-	-1.7	20	74	0
cis-1,3-Dichloropropene	0.365	0.358	-	1.9	20	68	0
Chlorobenzene-d5	1	1	-	0	20	73	0
Toluene-d8	1.253	1.269	-	-1.3	20	73	0
Toluene	0.796	0.816	-	-2.5	20	71	0
4-Methyl-2-pentanone	0.104	0.089	-	14.4	20	57	0
Tetrachloroethene	0.349	0.349	-	0	20	69	0
trans-1,3-Dichloropropene	0.388	0.389	-	-0.3	20	67	0
Ethyl methacrylate	0.255	0.242	-	5.1	20	63	0
1,1,2-Trichloroethane	0.184	0.188*	-	-2.2	20	68	0
Chlorodibromomethane	0.29	0.288	-	0.7	20	67	0
1,3-Dichloropropane	0.405	0.403	-	0.5	20	68	0
1,2-Dibromoethane	0.228	0.224	-	1.8	20	67	0
2-Hexanone	0.189	0.156	-	17.5	20	55	0
Chlorobenzene	0.862	0.899	-	-4.3	20	72	0
Ethylbenzene	1.586	1.637	-	-3.2	20	71	0
1,1,1,2-Tetrachloroethane	0.303	0.306	-	-1	20	69	0
p/m Xylene	0.601	0.62	-	-3.2	20	70	0
o Xylene	0.575	0.579	-	-0.7	20	69	0
Styrene	0.929	0.948	-	-2	20	70	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	77	0
Bromoform	0.296	0.281	-	5.1	20	71	0
Isopropylbenzene	3.112	2.909	-	6.5	20	69	0
4-Bromofluorobenzene	0.91	0.879	-	3.4	20	74	0
Bromobenzene	0.672	0.659	-	1.9	20	72	0
n-Propylbenzene	3.572	3.518	-	1.5	20	72	0
1,4-Dichlorobutane	1.168	1.028	-	12	20	64	0
1,1,2,2-Tetrachloroethane	0.489	0.469	-	4.1	20	71	0
4-Ethyltoluene	2.943	2.791	-	5.2	20	70	-.01
2-Chlorotoluene	2.037	1.962	-	3.7	20	72	0
1,3,5-Trimethylbenzene	2.562	2.395	-	6.5	20	69	0
1,2,3-Trichloropropane	0.401	0.376	-	6.2	20	69	0
trans-1,4-Dichloro-2-buten	0.215	0.199	-	7.4	20	68	0
4-Chlorotoluene	2.129	2.041	-	4.1	20	71	0
tert-Butylbenzene	2.253	2.161	-	4.1	20	71	0
1,2,4-Trimethylbenzene	2.465	2.297	-	6.8	20	68	0
sec-Butylbenzene	3.217	3.102	-	3.6	20	71	0
p-Isopropyltoluene	2.805	2.715	-	3.2	20	71	0
1,3-Dichlorobenzene	1.321	1.305	-	1.2	20	73	0
1,4-Dichlorobenzene	1.32	1.296	-	1.8	20	72	0
p-Diethylbenzene	1.625	1.541	-	5.2	20	70	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA105
 Lab File ID : V05241202A01
 Sample No : WG2004034-2
 Channel :

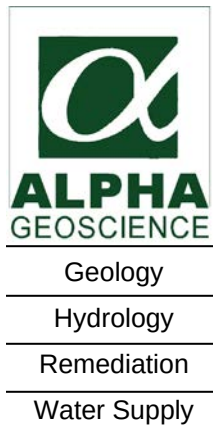
Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 12/02/24 06:35
 Init. Calib. Date(s) : 11/06/24 11/06/24
 Init. Calib. Times : 04:25 08:40

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	2.277	2.301	-	-1.1	20	75	0
1,2-Dichlorobenzene	1.191	1.157	-	2.9	20	71	0
1,2,4,5-Tetramethylbenzene	2.359	2.161	-	8.4	20	68	0
1,2-Dibromo-3-chloropropan	10	8.461	-	15.4	20	68	0
1,3,5-Trichlorobenzene	0.885	0.848	-	4.2	20	70	0
Hexachlorobutadiene	0.325	0.292	-	10.2	20	68	0
1,2,4-Trichlorobenzene	0.752	0.701	-	6.8	20	68	0
Naphthalene	1.668	1.494	-	10.4	20	65	0
1,2,3-Trichlorobenzene	0.635	0.59	-	7.1	20	68	0

* Value outside of QC limits.



SVOC Data Section



**QA/QC Review of Method 8270E Semi-Volatiles
Data for Alpha Analytical, SDG Number: L2468567**

**11 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were extracted and analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The DFTPP tuning criteria were within control limits.

Initial Calibration: The average RRFs for 2-chloronaphthalene and 2,6-dinitrotoluene were below the method minimums, but not below 0.010 for SV107 on 07-30-24. The average RRFs for 2-chloronaphthalene and 2,6-dinitrotoluene were below the method minimums, but not below 0.010 for SV106 on 10-09-24. The average RRF for 2,6-dinitrotoluene was below the method minimum, but not below 0.010 for DAKOTA on 11-05-24. No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no average RRF is less than 0.010.

The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRF for 2,6-dinitrotoluene was below the method minimum, but not below 0.010 on 11-24-24 (WG2001636-3). The RRFs for 2-chloronaphthalene and 2,6-dinitrotoluene were below the method minimums, but not below 0.010 on 11-27-24 (WG2002830-3). The RRFs for 2-chloronaphthalene and 2,6-dinitrotoluene were below the method minimums, but not below 0.010 on 11-27-24 (WG2003240-3). The %D for 4-nitroaniline was above the method maximum on 11-24-24 (WG2001636-3). The %Ds for 2,4-dinitrophenol, bis(2-chloroisopropyl)ether, hexachlorocyclopentadiene, and 4,6-dinitro-o-cresol were above the method maximum on 11-27-24 (WG2002830-3). The %Ds for p-chloro-m-cresol, hexachlorocyclopentadiene, 2,4,6-trichlorophenol, and 4-nitrophenol were above the method maximum on 11-27-24 (WG2003240-3). No action is taken on fewer than 20% of the compounds with method criteria outside control limits per calibration, provided no RRF is less than 0.010.

The RRFs for target compounds were above the allowable minimum (0.010), as required.

The %D for 4-nitroaniline was above the allowable maximum (20%) on 11-24-24 (WG2001636-3). The %Ds for 2,4-dinitrophenol, bis(2-chloroisopropyl)ether, hexachlorocyclopentadiene, and 4,6-dinitro-o-cresol were above the allowable maximum (20%) allowable maximum (20%) on 11-27-24 (WG2002830-3). The %D for caprolactam was above the allowable maximum (20%) on 11-27-24 (WG2002830-4). The %Ds for p-chloro-m-cresol, hexachlorocyclopentadiene, 2,4,6-trichlorophenol, and 4-nitrophenol were above the allowable maximum (20%) on 11-27-24 (WG2003240-3). (WG1964990-4). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: The analyses of the method blanks reported target compounds as not detected. FIELD BLANK contained a trace of phenol (1.4 ug/L). Positive results for phenol that are less than 5 times the highest blank level in associated samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: One of three surrogate recoveries for samples MW-6B and MW-7A was below control limits, but not below 10%. No action is taken on one surrogate recovery per fraction outside control limits, provided no recovery is less than 10%.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 2,4-dimethylphenol was above the allowable maximum; 1 of 2 percent recoveries (%Rs) for bis(2-chloroisopropyl)ether was below QC limits, but not below 30%; and 2 of 2 %Rs for hexachlorocyclopentadiene and 1 of 2 %Rs for 2,4-dimethylphenol were below QC limits and below 30% for aqueous MS/MSD sample MW-9B. The “not detected” result for bis(2-chloroisopropyl)ether should be considered estimated (UJ) and the “not detected” results for hexachlorocyclopentadiene and 2,4-dimethylphenol rejected, unusable (R) in sample MW-9B.

Laboratory Control Sample: The relative percent differences (RPDs) for target compounds were below the allowable, but 2 of 2 percent recoveries (%Rs) for p-chloro-m-cresol were above the QC limits for aqueous samples WG2001576-2/3. Positive results for p-chloro-m-cresol should be considered estimated, biased high (J+) in associated aqueous samples.

The RPDs for target compounds were below the allowable maximum, but 2 of 2 %Rs for hexachlorocyclopentadiene were below QC limits and below 30% for aqueous samples WG2002023-2/3. The RPDs for target compounds were below the allowable maximum, but 2 of 2 %Rs for hexachlorocyclopentadiene and 1 of 2 %Rs for 2,4-dimethylphenol were below QC limits and below 30% for aqueous samples WG2002127-2/3. Positive results for hexachlorocyclopentadiene and 2,4-dimethylphenol should be considered estimated, biased low (J-) and “not detected” results rejected, unusable (R) in associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported target compounds either as not detected or below the lowest standard; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked compound and surrogate results were within GC/MS quantitation limits. The mass spectra for detected compounds contained the primary and secondary ions, as outlined in the method.

Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2001576-2** Analysis Date : 11/24/24 15:05 File ID : 001576-2
 LCSD Sample ID : **WG2001576-3** Analysis Date : 11/24/24 15:27 File ID : 001576-3

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Bis(2-chloroethyl)ether	20	19.	96	20	18.	89	8	40-140	30
3,3'-Dichlorobenzidine	20	18.	90	20	18.	88	2	40-140	30
2,4-Dinitrotoluene	20	20.	102	20	20.	100	2	48-143	30
2,6-Dinitrotoluene	20	20.	102	20	20.	101	1	40-140	30
4-Chlorophenyl phenyl ether	20	18.	90	20	17.	86	5	40-140	30
4-Bromophenyl phenyl ether	20	18.	92	20	17.	87	6	40-140	30
Bis(2-chloroisopropyl)ether	20	20.	100	20	18.	92	8	40-140	30
Bis(2-chloroethoxy)methane	20	20.	102	20	20.	98	4	40-140	30
Hexachlorocyclopentadiene	20	9.3	47	20	9.0	45	4	40-140	30
Isophorone	20	19.	96	20	19.	94	2	40-140	30
Nitrobenzene	20	20.	103	20	18.	90	13	40-140	30
NDPA/DPA	20	19.	93	20	18.	89	4	40-140	30
n-Nitrosodi-n-propylamine	20	20.	102	20	19.	95	7	29-132	30
Bis(2-ethylhexyl)phthalate	20	19.	97	20	18.	89	9	40-140	30
Butyl benzyl phthalate	20	21.	105	20	19.	97	8	40-140	30
Di-n-butylphthalate	20	20.	102	20	19.	93	9	40-140	30
Di-n-octylphthalate	20	19.	97	20	18.	90	7	40-140	30
Diethyl phthalate	20	18.	91	20	18.	90	1	40-140	30
Dimethyl phthalate	20	19.	97	20	19.	94	3	40-140	30
Biphenyl	20	23.	114	20	22.	108	5	40-140	30
4-Chloroaniline	20	16.	80	20	14.	72	11	40-140	30
2-Nitroaniline	20	22.	108	20	22.	108	0	52-143	30
3-Nitroaniline	20	21.	103	20	20.	100	3	25-145	30
4-Nitroaniline	20	23.	116	20	21.	106	9	51-143	30
Dibenzofuran	20	19.	93	20	18.	89	4	40-140	30
1,2,4,5-Tetrachlorobenzene	20	20.	101	20	18.	92	9	2-134	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2001576-2** Analysis Date : 11/24/24 15:05 File ID : 001576-2
 LCSD Sample ID : **WG2001576-3** Analysis Date : 11/24/24 15:27 File ID : 001576-3

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Acetophenone	20	24.	121	20	23.	114	6	39-129	30
2,4,6-Trichlorophenol	20	20.	99	20	19.	96	3	30-130	30
p-Chloro-m-cresol	20	20.	99 Q	20	20.	98 Q	1	23-97	30
2-Chlorophenol	20	18.	92	20	18.	88	4	27-123	30
2,4-Dichlorophenol	20	20.	98	20	19.	93	5	30-130	30
2,4-Dimethylphenol	20	10.	50	20	12.	60	18	30-130	30
2-Nitrophenol	20	19.	96	20	19.	94	2	30-130	30
4-Nitrophenol	20	15.	74	20	15.	77	4	10-80	30
2,4-Dinitrophenol	20	12.	58	20	11.	55	5	20-130	30
4,6-Dinitro-o-cresol	20	16.	81	20	16.	79	3	20-164	30
Phenol	20	11.	57	20	11.	57	0	12-110	30
2-Methylphenol	20	18.	88	20	17.	83	6	30-130	30
3-Methylphenol/4-Methylphenol	20	17.	86	20	17.	86	0	30-130	30
2,4,5-Trichlorophenol	20	20.	102	20	20.	99	3	30-130	30
Carbazole	20	20.	102	20	19.	95	7	55-144	30
Atrazine	20	23.	117	20	23.	116	1	40-140	30
Benzaldehyde	20	26.	132	20	25.	126	5	40-140	30
Caprolactam	20	10.	52	20	9.6	48	8	10-130	30
2,3,4,6-Tetrachlorophenol	20	20.	101	20	20.	99	2	40-140	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2002023-2** Analysis Date : 11/26/24 02:11 File ID : 002023-2
 LCSD Sample ID : **WG2002023-3** Analysis Date : 11/26/24 02:35 File ID : 002023-3

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Bis(2-chloroethyl)ether	20	13.	67	20	14.	69	3	40-140	30
3,3'-Dichlorobenzidine	20	19.	96	20	20.	98	2	40-140	30
2,4-Dinitrotoluene	20	17.	84	20	19.	93	10	48-143	30
2,6-Dinitrotoluene	20	17.	85	20	18.	90	6	40-140	30
4-Chlorophenyl phenyl ether	20	15.	74	20	16.	79	7	40-140	30
4-Bromophenyl phenyl ether	20	16.	80	20	17.	85	6	40-140	30
Bis(2-chloroisopropyl)ether	20	9.4	47	20	10.	50	6	40-140	30
Bis(2-chloroethoxy)methane	20	14.	73	20	16.	79	8	40-140	30
Hexachlorocyclopentadiene	20	4.2	21 Q	20	3.8	19 Q	10	40-140	30
Isophorone	20	14.	70	20	15.	75	7	40-140	30
Nitrobenzene	20	13.	66	20	15.	73	10	40-140	30
NDPA/DPA	20	16.	81	20	18.	88	8	40-140	30
n-Nitrosodi-n-propylamine	20	14.	68	20	15.	74	8	29-132	30
Bis(2-ethylhexyl)phthalate	20	18.	90	20	20.	100	11	40-140	30
Butyl benzyl phthalate	20	18.	88	20	20.	99	12	40-140	30
Di-n-butylphthalate	20	16.	81	20	18.	90	11	40-140	30
Di-n-octylphthalate	20	18.	92	20	20.	98	6	40-140	30
Diethyl phthalate	20	17.	83	20	18.	90	8	40-140	30
Dimethyl phthalate	20	16.	81	20	18.	89	9	40-140	30
Biphenyl	20	14.	68	20	14.	69	1	40-140	30
4-Chloroaniline	20	12.	62	20	13.	66	6	40-140	30
2-Nitroaniline	20	16.	80	20	18.	92	14	52-143	30
3-Nitroaniline	20	17.	85	20	18.	90	6	25-145	30
4-Nitroaniline	20	17.	84	20	18.	93	10	51-143	30
Dibenzofuran	20	14.	70	20	15.	77	10	40-140	30
1,2,4,5-Tetrachlorobenzene	20	12.	59	20	12.	58	2	2-134	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2002023-2** Analysis Date : 11/26/24 02:11 File ID : 002023-2
 LCSD Sample ID : **WG2002023-3** Analysis Date : 11/26/24 02:35 File ID : 002023-3

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Acetophenone	20	16.	78	20	17.	86	10	39-129	30
2,4,6-Trichlorophenol	20	15.	75	20	17.	86	14	30-130	30
p-Chloro-m-cresol	20	15.	76	20	18.	92	19	23-97	30
2-Chlorophenol	20	14.	72	20	15.	76	5	27-123	30
2,4-Dichlorophenol	20	15.	77	20	17.	84	9	30-130	30
2,4-Dimethylphenol	20	10.	52	20	11.	55	6	30-130	30
2-Nitrophenol	20	16.	78	20	17.	86	10	30-130	30
4-Nitrophenol	20	11.	56	20	13.	63	12	10-80	30
2,4-Dinitrophenol	20	20.	102	20	21.	105	3	20-130	30
4,6-Dinitro-o-cresol	20	16.	78	20	18.	88	12	20-164	30
Phenol	20	7.5	38	20	8.5	42	10	12-110	30
2-Methylphenol	20	13.	67	20	14.	70	4	30-130	30
3-Methylphenol/4-Methylphenol	20	14.	69	20	14.	73	6	30-130	30
2,4,5-Trichlorophenol	20	16.	78	20	18.	88	12	30-130	30
Carbazole	20	16.	81	20	18.	88	8	55-144	30
Atrazine	20	17.	86	20	18.	90	5	40-140	30
Benzaldehyde	20	16.	81	20	17.	87	7	40-140	30
Caprolactam	20	5.6	28	20	6.1	31	10	10-130	30
2,3,4,6-Tetrachlorophenol	20	17.	84	20	19.	95	12	40-140	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2002127-2** Analysis Date : 11/26/24 16:26 File ID : 002127-2
 LCSD Sample ID : **WG2002127-3** Analysis Date : 11/26/24 16:49 File ID : 002127-3

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Bis(2-chloroethyl)ether	20	15.	77	20	14.	72	7	40-140	30
3,3'-Dichlorobenzidine	20	14.	69	20	14.	69	0	40-140	30
2,4-Dinitrotoluene	20	16.	81	20	14.	73	10	48-143	30
2,6-Dinitrotoluene	20	16.	78	20	14.	73	7	40-140	30
4-Chlorophenyl phenyl ether	20	13.	67	20	13.	64	5	40-140	30
4-Bromophenyl phenyl ether	20	14.	69	20	13.	67	3	40-140	30
Bis(2-chloroisopropyl)ether	20	16.	79	20	16.	78	1	40-140	30
Bis(2-chloroethoxy)methane	20	16.	78	20	15.	75	4	40-140	30
Hexachlorocyclopentadiene	20	5.8	29 Q	20	5.7	29 Q	0	40-140	30
Isophorone	20	15.	76	20	14.	72	5	40-140	30
Nitrobenzene	20	16.	79	20	15.	74	7	40-140	30
NDPA/DPA	20	14.	70	20	13.	66	6	40-140	30
n-Nitrosodi-n-propylamine	20	16.	81	20	15.	73	10	29-132	30
Bis(2-ethylhexyl)phthalate	20	16.	82	20	15.	75	9	40-140	30
Butyl benzyl phthalate	20	17.	86	20	16.	81	6	40-140	30
Di-n-butylphthalate	20	16.	83	20	15.	77	8	40-140	30
Di-n-octylphthalate	20	17.	83	20	15.	75	10	40-140	30
Diethyl phthalate	20	15.	74	20	14.	70	6	40-140	30
Dimethyl phthalate	20	15.	75	20	14.	71	5	40-140	30
Biphenyl	20	16.	81	20	15.	76	6	40-140	30
4-Chloroaniline	20	11.	54	20	8.3	41	27	40-140	30
2-Nitroaniline	20	16.	81	20	15.	77	5	52-143	30
3-Nitroaniline	20	15.	77	20	15.	76	1	25-145	30
4-Nitroaniline	20	16.	83	20	16.	81	2	51-143	30
Dibenzofuran	20	14.	70	20	13.	66	6	40-140	30
1,2,4,5-Tetrachlorobenzene	20	14.	72	20	14.	68	6	2-134	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG2002127-2** Analysis Date : 11/26/24 16:26 File ID : 002127-2
 LCSD Sample ID : **WG2002127-3** Analysis Date : 11/26/24 16:49 File ID : 002127-3

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Acetophenone	20	20.	99	20	18.	92	7	39-129	30
2,4,6-Trichlorophenol	20	15.	76	20	14.	69	10	30-130	30
p-Chloro-m-cresol	20	15.	75	20	14.	70	7	23-97	30
2-Chlorophenol	20	15.	74	20	14.	69	7	27-123	30
2,4-Dichlorophenol	20	15.	77	20	14.	72	7	30-130	30
2,4-Dimethylphenol	20	6.2	31	20	5.3	26 Q	18	30-130	30
2-Nitrophenol	20	15.	77	20	15.	75	3	30-130	30
4-Nitrophenol	20	12.	62	20	12.	58	7	10-80	30
2,4-Dinitrophenol	20	7.2	36	20	7.5	37	3	20-130	30
4,6-Dinitro-o-cresol	20	12.	63	20	12.	61	3	20-164	30
Phenol	20	8.2	41	20	8.1	41	0	12-110	30
2-Methylphenol	20	12.	62	20	12.	58	7	30-130	30
3-Methylphenol/4-Methylphenol	20	12.	63	20	12.	61	3	30-130	30
2,4,5-Trichlorophenol	20	16.	79	20	14.	71	11	30-130	30
Carbazole	20	16.	79	20	15.	75	5	55-144	30
Atrazine	20	19.	97	20	18.	90	7	40-140	30
Benzaldehyde	20	22.	110	20	20.	99	11	40-140	30
Caprolactam	20	8.3	42	20	7.3	37	13	10-130	30
2,3,4,6-Tetrachlorophenol	20	16.	81	20	15.	77	5	40-140	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : MW-9B
 Lab Sample ID : L2468567-11
 Matrix Spike : WG2002023-4
 Matrix Spike Dup : WG2002023-5

Lab Number : L2468567
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 11/27/24 09:08
 MS Analysis Date : 11/27/24 08:20
 MSD Analysis Date : 11/27/24 08:44

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
Bis(2-chloroethyl)ether	ND	20	12.	60	20	13.	65	8	40-140	30
3,3'-Dichlorobenzidine	ND	20	17.	85	20	19.	95	11	40-140	30
2,4-Dinitrotoluene	ND	20	16.	80	20	18.	90	12	48-143	30
2,6-Dinitrotoluene	ND	20	15.	75	20	18.	90	18	40-140	30
4-Chlorophenyl phenyl ether	ND	20	14.	70	20	15.	75	7	40-140	30
4-Bromophenyl phenyl ether	ND	20	15.	75	20	16.	80	6	40-140	30
Bis(2-chloroisopropyl)ether	ND	20	7.8	39 Q	20	9.1	46	15	40-140	30
Bis(2-chloroethoxy)methane	ND	20	13.	65	20	15.	75	14	40-140	30
Hexachlorocyclopentadiene	ND	20	3.1J	16 Q	20	2.8J	14 Q	10	40-140	30
Isophorone	ND	20	12.	60	20	14.	70	15	40-140	30
Nitrobenzene	ND	20	12.	60	20	14.	70	15	40-140	30
NDPA/DPA	ND	20	15.	75	20	17.	85	13	40-140	30
n-Nitrosodi-n-propylamine	ND	20	12.	60	20	14.	70	15	29-132	30
Bis(2-ethylhexyl)phthalate	ND	20	18.	90	20	20.	100	11	40-140	30
Butyl benzyl phthalate	ND	20	18.	90	20	20.	100	11	40-140	30
Di-n-butylphthalate	ND	20	16.	80	20	18.	90	12	40-140	30
Di-n-octylphthalate	ND	20	18.	90	20	20.	100	11	40-140	30
Diethyl phthalate	ND	20	16.	80	20	18.	90	12	40-140	30
Dimethyl phthalate	ND	20	15.	75	20	17.	85	13	40-140	30
Biphenyl	ND	20	11.	55	20	12.	60	9	40-140	30
4-Chloroaniline	ND	20	9.4	47	20	12.	60	24	40-140	30
2-Nitroaniline	ND	20	16.	80	20	18.	90	12	52-143	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-9B**
 Lab Sample ID : L2468567-11
 Matrix Spike : WG2002023-4
 Matrix Spike Dup : WG2002023-5

Lab Number : L2468567
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 11/27/24 09:08
 MS Analysis Date : 11/27/24 08:20
 MSD Analysis Date : 11/27/24 08:44

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
3-Nitroaniline	ND	20	15.	75	20	17.	85	13	25-145	30
4-Nitroaniline	ND	20	16.	80	20	18.	90	12	51-143	30
Dibenzofuran	ND	20	13.	65	20	14.	70	7	40-140	30
1,2,4,5-Tetrachlorobenzene	ND	20	9.1J	46	20	8.6J	43	6	2-134	30
Acetophenone	ND	20	13.	65	20	16.	80	21	39-129	30
2,4,6-Trichlorophenol	ND	20	14.	70	20	16.	80	13	30-130	30
p-Chloro-m-cresol	ND	20	14.	70	20	17.	85	19	23-97	30
2-Chlorophenol	ND	20	12.	60	20	14.	70	15	27-123	30
2,4-Dichlorophenol	ND	20	13.	65	20	16.	80	21	30-130	30
2,4-Dimethylphenol	ND	20	5.5	28 Q	20	7.7	39	33 Q	30-130	30
2-Nitrophenol	ND	20	13.	65	20	15.	75	14	30-130	30
4-Nitrophenol	ND	20	11.	55	20	12.	60	9	10-80	30
2,4-Dinitrophenol	ND	20	19.J	95	20	20.	100	5	20-130	30
4,6-Dinitro-o-cresol	ND	20	15.	75	20	16.	80	6	20-164	30
Phenol	ND	20	6.8	34	20	7.4	37	8	12-110	30
2-Methylphenol	ND	20	10.	50	20	12.	60	18	30-130	30
3-Methylphenol/4-Methylphenol	ND	20	11.	55	20	14.	70	24	30-130	30
2,4,5-Trichlorophenol	ND	20	15.	75	20	18.	90	18	30-130	30
Carbazole	ND	20	15.	75	20	18.	90	18	55-144	30
Atrazine	ND	20	16.	80	20	18.	90	12	40-140	30
Benzaldehyde	ND	20	14.	70	20	16.	80	13	40-140	30
Caprolactam	ND	20	5.0J	25	20	5.4J	27	8	10-130	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client	: Alpha Geoscience	Lab Number	: L2468567
Project Name	: RANCO MINE	Project Number	: 12123
Client Sample ID	: MW-9B	Matrix (Level)	: WATER (LOW)
Lab Sample ID	: L2468567-11	Analysis Date	: 11/27/24 09:08
Matrix Spike	: WG2002023-4	MS Analysis Date	: 11/27/24 08:20
Matrix Spike Dup	: WG2002023-5	MSD Analysis Date	: 11/27/24 08:44

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
2,3,4,6-Tetrachlorophenol	ND	20	16.	80	20	19.	95	17	40-140	30



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : SV107
Calibration dates : 07/30/24 19:25 07/31/24 07:43
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21360

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ADPL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
1) I IS1_1,4-Dichlorobenzene-d4	-----ISTD-----										
2) t N-Nitrosodimethylamine		0.624	0.767	0.690	0.709	0.713	0.729	0.717	0.734	0.710	5.84
3) t Pyridine		0.926	1.093	1.046	1.076	1.192	1.133	1.066	1.160	1.086	7.50
4) S 2-Fluorophenol		0.970	1.079	1.023	1.072	1.084	1.124	1.101	1.186	1.080	5.97
5) T Aniline	1.690	1.824	1.749	1.712	1.707	1.641	1.829	1.825	1.908	1.765	4.86
6) t 2-Chlorophenol	1.239	1.274	1.314	1.229	1.265	1.234	1.342	1.348	1.403	1.294	4.70
7) S Phenol-d6	1.250	1.403	1.443	1.386	1.371	1.328	1.476	1.493	1.566	1.413	6.68
8) T Phenol	1.525	1.651	1.602	1.506	1.512	1.452	1.578	1.599	1.673	1.566	4.64
9) T bis(2-Chloroethyl)ether	1.334	1.365	1.296	1.197	1.159	1.116	1.235	1.237	1.286	1.247	6.54
10) T 1,3-Dichlorobenzene	1.625	1.839	1.597	1.526	1.500	1.472	1.555	1.532	1.641	1.587	6.92
11) T 1,4-Dichlorobenzene	1.579	1.873	1.614	1.563	1.500	1.477	1.582	1.559	1.648	1.599	7.19
12) T 1,2-Dichlorobenzene	1.492	1.802	1.637	1.481	1.437	1.427	1.553	1.593	1.633	1.562	7.67
13) t Benzyl alcohol		1.029	0.984	0.896	0.916	0.918	1.069	1.114	1.151	1.010	9.59
14) T bis(2-chloroisopropyl)ether	1.584	1.788	1.653	1.540	1.515	1.455	1.649	1.664	1.708	1.617	6.39
15) T 2-Methylphenol	1.065	1.097	1.101	1.073	1.068	1.000	1.180	1.237	1.316	1.126	8.82
16) T Hexachloroethane	0.435	0.657	0.567	0.540	0.552	0.543	0.572	0.585	0.614	0.563	10.79
17) T n-Nitrosodi-n-propylamine		0.866	0.827	0.804	0.812	0.775	0.906	0.938	0.969	0.862	8.07
18) T 3-Methylphenol/4-Methylphenol		1.280	1.234	1.157	1.179	1.090	1.278	1.325	1.386	1.241	7.76
19) S Nitrobenzene-d5	1.421	1.399	1.344	1.288	1.277	1.240	1.407	1.446	1.486	1.368	6.17
20) T Nitrobenzene	1.242	1.327	1.317	1.249	1.250	1.204	1.386	1.403	1.431	1.312	6.17
21) T Isophorone	2.288	2.249	2.253	2.150	2.273	2.121	2.526	2.581	2.652	2.344	8.22
22) T 2-Nitrophenol				0.529	0.596	0.594	0.725	0.760	0.795	0.667	16.11
23) T 2,4-Dimethylphenol		1.085	1.078	1.118	1.086	0.664	1.133	1.188	1.298	1.081	17.00
24) T bis(2-Chloroethoxy)methane	1.772	1.688	1.538	1.503	1.513	1.374	1.577	1.611	1.690	1.585	7.60
25) T 2,4-Dichlorophenol		1.109	1.081	1.090	1.120	1.073	1.266	1.323	1.383	1.180	10.47
26) T 1,2,4-Trichlorobenzene	1.386	1.596	1.469	1.329	1.303	1.245	1.387	1.425	1.504	1.405	7.69
27) I IS2_1,4-Dichlorobenzene-d4	-----ISTD-----										
28) T Benzaldehyde		1.113	1.135	1.132	1.078	1.101	1.175	1.198	1.223	1.145	4.37
29) T Acetophenone		1.955	1.982	2.026	1.901	1.937	2.098	2.153	2.202	2.032	5.35
30) T m-Toluidine	1.270	1.621	1.725	1.791	1.838	1.902	2.105	2.210	2.276	1.860	16.85
31) T 2-Chloroaniline	1.465	1.578	1.717	1.763	1.706	1.767	1.913	1.985	2.060	1.773	10.69
32) I IS3_1,4-Dichlorobenzene-d4	-----ISTD-----										
33) 1,4-Dioxane		0.485	0.487	0.521	0.437	0.401	0.468	0.430	0.446	0.459	8.33
34) T n-Decane	1.305	1.364	1.381	1.475	1.372	1.263	1.425	1.402	1.509	1.388	5.54
35) I IS1_Naphthalene-d8	-----ISTD-----										
36) T Naphthalene	1.325	1.285	1.153	1.086	1.018	0.995	1.087	1.085	1.154	1.132	9.86



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV107
 Calibration dates : 07/30/24 19:25 07/31/24 07:43

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21360

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ADPL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
37) T Benzoic Acid					0.141	0.169	0.227	0.248	0.272	*L	0.9979
38) T 4-Chloroaniline	0.106	0.129	0.120	0.127	0.121	0.121	0.134	0.135	0.144	0.126	8.66
39) T Hexachlorobutadiene	0.207	0.271	0.226	0.212	0.213	0.205	0.221	0.224	0.235	0.224	8.96
40) T p-Chloro-m-cresol	0.217	0.276	0.271	0.272	0.274	0.258	0.315	0.319	0.345	0.283	13.43
41) T 2-Methylnaphthalene	0.825	0.784	0.716	0.702	0.687	0.656	0.736	0.735	0.793	0.737	7.41
42) T 1-Methylnaphthalene	0.212	0.276	0.236	0.226	0.224	0.218	0.244	0.245	0.263	0.238	8.97
43) T Hexachlorocyclopentadiene	0.164	0.216	0.205	0.204	0.199	0.198	0.231	0.234	0.255	0.212	12.42
44) T 2,4,6-Trichlorophenol	0.167	0.222	0.209	0.227	0.233	0.219	0.264	0.272	0.294	0.234	16.11
45) T 2,4,5-Trichlorophenol	0.170	0.235	0.231	0.239	0.244	0.237	0.283	0.291	0.307	0.249	16.38
46) S 2-Fluorobiphenyl	0.972	1.060	0.884	0.851	0.817	0.767	0.890	0.897	0.961	0.900	9.79
47) T 2-Chloronaphthalene	0.858	0.850	0.745	0.729	0.711	0.650	0.756	0.760	0.808	0.763	8.75
48) T 2-Nitroaniline			0.155	0.170	0.193	0.181	0.236	0.238	0.255	0.204	18.91
49) T 1,4-Dinitrobenzene					0.097	0.089	0.118	0.120	0.125	0.110	14.44
50) T 1,3-Dinitrobenzene					0.111	0.105	0.137	0.141	0.151	0.129	15.31
51) T Dimethyl phthalate		0.935	0.868	0.833	0.836	0.737	0.885	0.878	0.930	0.863	7.31
52) T Acenaphthylene	1.141	1.182	1.070	1.063	1.061	0.984	1.192	1.209	1.291	1.132	8.41
53) T 2,6-Dinitrotoluene			0.137	0.157	0.164	0.153	0.189	0.184	0.198	0.169	12.99
54) T 1,2-Dinitrobenzene			0.060	0.068	0.075	0.068	0.087	0.087	0.093	0.077	16.17
55) I IS2_Naphthalene-d8	-----ISTD-----										
56) T a-Terpeneol	0.187	0.279	0.269	0.280	0.281	0.305	0.337	0.359	0.373	0.297	18.90
57) T 3-Chloroaniline		0.137	0.151	0.150	0.156	0.165	0.179	0.179	0.185	0.163	10.60
58) T 2,6-Dichlorophenol	0.202	0.277	0.299	0.308	0.315	0.332	0.361	0.382	0.400	0.319	18.62
59) T 1-chloro-2-nitrobenzene		0.128	0.136	0.147	0.151	0.154	0.169	0.175	0.180	0.155	12.00
60) T Caprolactam				0.105	0.134	0.151	0.183	0.191	0.191	*L	0.9988
61) T 1,2,4,5-Tetrachlorobenzene	0.443	0.435	0.442	0.429	0.427	0.425	0.455	0.457	0.484	0.444	4.24
62) T Biphenyl	0.952	1.044	1.044	0.993	0.991	0.977	1.060	1.113	1.147	1.036	6.22
63) I IS1_Acenaphthene-d10	-----ISTD-----										
64) T 3-Nitroaniline			0.278	0.303	0.313	0.311	0.336	0.339	0.360	0.320	8.44
65) T Acenaphthene	1.218	1.273	1.188	1.104	1.021	1.022	1.083	1.136	1.198	1.138	7.76
66) T 2,4-Dinitrophenol				0.084	0.124	0.134	0.193	0.218	0.230	*L	0.9940
67) T Dibenzofuran	2.280	2.138	1.895	1.802	1.687	1.641	1.747	1.808	1.913	1.879	11.15
68) T 2,4-Dinitrotoluene			0.337	0.351	0.395	0.373	0.438	0.470	0.495	0.408	14.87
69) T 4-Nitrophenol				0.222	0.245	0.239	0.261	0.271	0.281	0.253	8.58
70) T 2,3,5,6-Tetrachlorophenol	0.197	0.299	0.336	0.333	0.348	0.338	0.389	0.402	0.427	0.341	19.68
71) T 2,3,4,6-Tetrachlorophenol	0.201	0.266	0.308	0.324	0.340	0.333	0.371	0.378	0.408	0.325	19.20
72) T Diethyl phthalate	1.375	1.432	1.374	1.252	1.250	1.154	1.322	1.361	1.423	1.327	6.91



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV107
 Calibration dates : 07/30/24 19:25 07/31/24 07:43

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21360

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ADPL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
73) T Fluorene	1.456	1.525	1.451	1.329	1.295	1.256	1.361	1.426	1.539	1.404	7.11
74) T 4-Chlorophenyl-phenylether	0.799	0.814	0.735	0.664	0.651	0.629	0.678	0.702	0.744	0.713	9.10
75) T 4-Nitroaniline			0.278	0.300	0.318	0.301	0.355	0.340	0.350	0.320	8.98
76) T 4,6-Dinitro-o-cresol			0.109	0.136	0.186	0.185	0.252	0.271	0.287		*L 0.9939
77) T NDPA/DPA	1.043	1.225	1.234	1.127	1.112	1.057	1.178	1.219	1.297	1.166	7.40
78) T Azobenzene	1.162	1.290	1.300	1.178	1.204	1.129	1.249	1.232	1.294	1.226	5.08
79) S 2,4,6-Tribromophenol			0.171	0.159	0.175	0.170	0.190	0.214	0.232	0.187	14.31
80) T 4-Bromophenyl-phenylether	0.405	0.392	0.386	0.370	0.371	0.341	0.385	0.390	0.423	0.385	6.04
81) T Hexachlorobenzene		0.437	0.445	0.420	0.394	0.381	0.415	0.437	0.469	0.425	6.62
82) T Pentachlorophenol				0.192	0.240	0.234	0.298	0.327	0.345		*L 0.9960
83) I IS2_Acenaphthene-d10	-----ISTD-----										
84) T Dichloran				0.122	0.142	0.164	0.212	0.248	0.253		*L 0.9948
85) T Pentachloronitrobenzene				0.133	0.159	0.166	0.199	0.221	0.225		*L 0.9975
86) I IS3_Acenaphthene-d10	-----ISTD-----										
87) T Atrazine		0.249	0.284	0.293	0.307	0.315	0.369	0.386		0.315	15.27
88) I IS1_Phenanthrene-d10	-----ISTD-----										
89) T Phenanthrene	1.312	1.332	1.162	1.089	1.016	1.017	1.107	1.132	1.194	1.151	9.86
90) T Anthracene	1.105	1.151	1.050	1.039	0.991	0.991	1.111	1.140	1.222	1.089	7.11
91) T Carbazole	0.904	0.969	0.974	0.960	0.930	0.920	1.062	1.071	1.153	0.994	8.41
92) T Di-n-butylphthalate			0.916	0.932	0.979	0.945	1.199	1.313	1.375	1.094	17.94
93) T Fluoranthene	1.268	1.306	1.223	1.157	1.181	1.138	1.279	1.384	1.415	1.261	7.68
94) T Benzidine				0.535	0.618	0.533	0.763	0.778	0.895		*L 0.9908
95) T Pyrene	1.429	1.455	1.354	1.285	1.270	1.229	1.363	1.456	1.505	1.372	6.99
96) S 4-Terphenyl-d14	0.939	0.964	0.947	0.910	0.888	0.825	0.923	1.043	1.074	0.946	8.01
97) T Butyl benzyl phthalate			0.318	0.342	0.401	0.384	0.557	0.620	0.652		*L 0.9907
98) I IS2_Phenanthrene-d10	-----ISTD-----										
99) T Diphenamid			0.398	0.403	0.444	0.484	0.554	0.623	0.639	0.507	19.79
100) I IS3_Phenanthrene-d10	-----ISTD-----										
101) T n-Octadecane	0.286	0.314	0.366	0.378	0.385	0.375	0.422	0.435	0.471	0.381	15.10
102) T Parathion			0.053	0.053	0.056	0.066	0.091	0.109	0.134		*Q 0.9983
103) T 3,3'-Dimethylbenzidine				0.377	0.480	0.541	0.757	0.800	0.926		*L 0.9909
104) I IS1_Chrysene-d12	-----ISTD-----										
105) T Benzo[a]anthracene	1.617	1.570	1.439	1.357	1.331	1.335	1.472	1.474	1.485	1.453	6.91
106) T 3,3'-Dichlorobenzidine		0.323	0.338	0.374	0.418	0.422	0.521	0.547	0.554		*L 0.9961
107) T Chrysene		1.739	1.499	1.395	1.295	1.286	1.337	1.326	1.350	1.403	10.81
108) T bis(2-Ethylhexyl)phthalate		0.527	0.534	0.564	0.662	0.667	0.862	0.884	0.905		*Q 0.9973



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : SV107
Calibration dates : 07/30/24 19:25 07/31/24 07:43
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21360

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ADPL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

	Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
109) T	Di-n-octylphthalate			0.742	0.786	0.999	1.008	1.405	1.499	1.568	*L	0.9935
110) T	Benzo(b)fluoranthene	1.184	1.338	1.252	1.212	1.197	1.198	1.244	1.304	1.334	1.251	4.80
111) T	Benzo(k)fluoranthene	1.077	1.225	1.303	1.168	1.262	1.274	1.320	1.352	1.281	1.251	6.75
112) T	Benzo(a)pyrene	0.929	1.038	1.086	1.053	1.096	1.109	1.188	1.196	1.211	1.101	8.19
113) I	IS1_Perylene-d12	-----ISTD-----										
114) T	Indeno(1,2,3-cd)pyrene		1.038	1.025	0.971	1.020	1.069	1.195	1.207	1.259	1.098	9.69
115) T	Dibenzo[a,h]anthracene	0.861	1.013	1.025	1.013	1.012	1.043	1.125	1.166	1.242	1.056	10.39
116) T	Benzo(g,h,i)perylene	0.957	1.101	0.996	0.983	0.996	1.024	1.039	0.894	0.806	0.977	8.78

Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Calibration dates : 10/09/24 20:07 10/11/24 15:53

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21604

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ABNL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
1) I IS1_1,4-Dichlorobenzene-d4	-----ISTD-----										
2) t N-Nitrosodimethylamine	0.794	0.791	0.767	0.739	0.714	0.756	0.724	0.759	0.797	0.760	4.03
3) t Pyridine	1.259	1.357	1.206	1.165	1.167	1.210	1.166	1.206	1.233	1.219	4.99
4) S 2-Fluorophenol	1.469	1.303	1.174	1.186	1.133	1.228	1.179	1.261	1.267	1.245	8.05
5) T Aniline	1.663	1.751	1.672	1.834	1.671	1.817	1.760	1.844	1.927	1.771	5.20
6) t 2-Chlorophenol	1.427	1.504	1.219	1.353	1.263	1.386	1.328	1.380	1.426	1.365	6.39
7) S Phenol-d6	1.690	1.672	1.373	1.453	1.356	1.471	1.439	1.490	1.538	1.498	7.85
8) T Phenol	1.782	1.590	1.411	1.532	1.437	1.569	1.508	1.563	1.599	1.555	6.90
9) T bis(2-Chloroethyl)ether	1.547	1.430	1.155	1.205	1.157	1.290	1.215	1.243	1.282	1.280	10.18
10) T 1,3-Dichlorobenzene	1.810	1.795	1.663	1.645	1.555	1.636	1.587	1.649	1.679	1.669	5.09
11) T 1,4-Dichlorobenzene	1.853	1.897	1.663	1.742	1.547	1.652	1.586	1.663	1.696	1.700	6.76
12) T 1,2-Dichlorobenzene	1.987	1.723	1.549	1.575	1.494	1.609	1.530	1.580	1.625	1.630	9.12
13) t Benzyl alcohol	1.155	1.145	0.982	1.001	0.932	1.064	1.047	1.076	1.140	1.060	7.40
14) T bis(2-chloroisopropyl)ether	2.486	2.142	1.894	2.011	1.807	1.970	1.888	1.935	1.990	2.014	9.94
15) T 2-Methylphenol	1.240	1.140	1.057	1.085	1.025	1.140	1.101	1.148	1.174	1.123	5.75
16) T Hexachloroethane	0.710	0.636	0.598	0.613	0.559	0.601	0.584	0.612	0.612	0.614	6.85
17) T n-Nitrosodi-n-propylamine	1.069	1.007	0.853	0.911	0.822	0.960	0.916	0.940	0.985	0.940	8.11
18) T 3-Methylphenol/4-Methylphenol	1.351	1.247	1.151	1.188	1.120	1.250	1.202	1.243	1.276	1.225	5.66
19) S Nitrobenzene-d5	1.664	1.365	1.257	1.277	1.207	1.373	1.329	1.366	1.397	1.359	9.59
20) T Nitrobenzene	1.673	1.444	1.291	1.318	1.233	1.384	1.363	1.378	1.417	1.389	8.97
21) T Isophorone	2.685	2.494	2.213	2.320	2.136	2.481	2.408	2.450	2.557	2.416	7.06
22) T 2-Nitrophenol	0.725	0.742	0.599	0.681	0.644	0.752	0.721	0.771	0.778	0.713	8.43
23) T 2,4-Dimethylphenol	1.273	1.164	1.053	1.089	1.008	1.124	1.080	1.101	1.174	1.119	6.94
24) T bis(2-Chloroethoxy)methane	1.915	1.579	1.540	1.620	1.443	1.643	1.577	1.573	1.636	1.614	7.92
25) T 2,4-Dichlorophenol	1.404	1.292	1.102	1.201	1.140	1.303	1.232	1.275	1.302	1.250	7.39
26) T 1,2,4-Trichlorobenzene	1.696	1.587	1.414	1.423	1.316	1.411	1.381	1.403	1.407	1.449	8.08
27) I IS2_1,4-Dichlorobenzene-d4	-----ISTD-----										
28) T Benzaldehyde	0.774	0.848	0.995	0.869	1.012	0.975	0.981	0.966	1.108	0.948	10.60
29) T Acetophenone	1.728	1.786	1.934	1.608	1.877	1.809	1.798	1.826	2.091	1.829	7.34
30) T m-Toluidine			1.396	1.351	1.634	1.628	1.682	1.683	1.912	1.612	11.74
31) T 2-Chloroaniline	1.363	1.516	1.622	1.464	1.694	1.652	1.649	1.650	1.874	1.609	9.14
32) I IS3_1,4-Dichlorobenzene-d4	-----ISTD-----										
33) t 1,4-Dioxane		0.609	0.450	0.607	0.439	0.395	0.462	0.456	0.466	0.485	16.26
34) T n-Decane		1.504	1.315	1.921	1.407	1.268	1.487	1.469	1.516	1.486	13.30
35) I IS1_Naphthalene-d8	-----ISTD-----										
36) T Naphthalene	1.353	1.228	1.064	1.107	1.009	1.089	1.067	1.105	1.142	1.129	9.13



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Calibration dates : 10/09/24 20:07 10/11/24 15:53

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21604

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ABNL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
37) T Benzoic Acid					0.158	0.213	0.243	0.276	0.289	*L	0.9994
38) T 4-Chloroaniline	0.123	0.144	0.111	0.131	0.114	0.129	0.126	0.130	0.132	0.127	7.95
39) T Hexachlorobutadiene	0.255	0.262	0.221	0.246	0.219	0.239	0.226	0.235	0.245	0.239	6.22
40) T p-Chloro-m-cresol	0.301	0.309	0.257	0.286	0.264	0.305	0.303	0.314	0.327	0.296	7.79
41) T 2-Methylnaphthalene	0.899	0.803	0.686	0.722	0.672	0.747	0.726	0.750	0.767	0.752	9.00
42) T 1-Methylnaphthalene	0.294	0.265	0.228	0.236	0.211	0.237	0.231	0.240	0.249	0.243	9.82
43) T Hexachlorocyclopentadiene	0.266	0.278	0.246	0.258	0.238	0.261	0.259	0.268	0.283	0.262	5.37
44) T 2,4,6-Trichlorophenol	0.306	0.284	0.252	0.258	0.243	0.285	0.278	0.281	0.289	0.275	7.27
45) T 2,4,5-Trichlorophenol	0.288	0.304	0.254	0.278	0.261	0.288	0.287	0.293	0.311	0.285	6.49
46) S 2-Fluorobiphenyl	1.120	0.991	0.853	0.900	0.812	0.918	0.896	0.904	0.938	0.926	9.56
47) T 2-Chloronaphthalene	0.953	0.836	0.728	0.770	0.691	0.769	0.763	0.763	0.788	0.785	9.50
48) T 2-Nitroaniline	0.252	0.211	0.195	0.201	0.187	0.234	0.241	0.241	0.248	0.223	11.09
49) T 1,4-Dinitrobenzene	0.113	0.112	0.103	0.101	0.101	0.122	0.123	0.124	0.128	0.114	9.32
50) T 1,3-Dinitrobenzene	0.132	0.104	0.110	0.125	0.108	0.136	0.137	0.134	0.139	0.125	10.98
51) T Dimethyl phthalate	1.062	0.944	0.878	0.892	0.815	0.943	0.906	0.876	0.916	0.915	7.39
52) T Acenaphthylene	1.355	1.229	1.072	1.123	1.033	1.177	1.163	1.165	1.210	1.170	8.00
53) T 2,6-Dinitrotoluene	0.193	0.168	0.161	0.182	0.167	0.204	0.200	0.196	0.202	0.186	8.97
54) T 1,2-Dinitrobenzene	0.088	0.079	0.069	0.082	0.071	0.086	0.085	0.081	0.084	0.081	7.92
55) I IS2_Naphthalene-d8	-----ISTD-----										
56) T a-Terpeneol	0.275	0.267	0.269	0.236	0.290	0.280	0.293	0.293	0.336	0.282	9.59
57) T 3-Chloroaniline	0.109	0.107	0.147	0.120	0.138	0.140	0.144	0.137	0.152	0.132	12.57
58) T 2,6-Dichlorophenol	0.244	0.282	0.299	0.262	0.307	0.310	0.320	0.315	0.361	0.300	11.42
59) T 1-chloro-2-nitrobenzene	0.128	0.138	0.151	0.127	0.151	0.146	0.151	0.149	0.169	0.145	9.06
60) T Caprolactam		0.121	0.133	0.124	0.148	0.151	0.156	0.162	0.178	0.147	13.33
61) T 1,2,4,5-Tetrachlorobenzene	0.362	0.388	0.443	0.367	0.409	0.398	0.406	0.396	0.448	0.402	7.30
62) T Biphenyl	0.800	0.845	0.953	0.829	0.952	0.925	0.914	0.914	1.032	0.907	7.94
63) I IS1_Acenaphthene-d10	-----ISTD-----										
64) T 3-Nitroaniline	0.325	0.328	0.284	0.310	0.298	0.334	0.336	0.346	0.346	0.323	6.65
65) T Acenaphthene	1.468	1.237	1.049	1.163	1.000	1.107	1.100	1.148	1.141	1.157	11.64
66) T 2,4-Dinitrophenol					0.141	0.198	0.224	0.241	0.249	*L	1.0000
67) T Dibenzofuran	2.384	2.124	1.675	1.894	1.624	1.767	1.756	1.812	1.811	1.872	12.80
68) T 2,4-Dinitrotoluene	0.436	0.419	0.352	0.412	0.369	0.438	0.438	0.453	0.455	0.419	8.62
69) T 4-Nitrophenol	0.227	0.227	0.189	0.243	0.217	0.255	0.257	0.267	0.267	0.239	10.86
70) T 2,3,5,6-Tetrachlorophenol	0.372	0.380	0.337	0.377	0.357	0.406	0.418	0.432	0.435	0.390	8.75
71) T 2,3,4,6-Tetrachlorophenol	0.405	0.372	0.339	0.390	0.345	0.400	0.399	0.406	0.412	0.385	7.04
72) T Diethyl phthalate	1.818	1.602	1.416	1.472	1.357	1.481	1.478	1.508	1.529	1.518	8.67



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Calibration dates : 10/09/24 20:07 10/11/24 15:53

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21604

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ABNL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
73) T Fluorene	1.777	1.580	1.346	1.483	1.268	1.426	1.416	1.426	1.436	1.462	9.97
74) T 4-Chlorophenyl-phenylether	0.990	0.829	0.702	0.742	0.632	0.721	0.710	0.716	0.711	0.750	13.75
75) T 4-Nitroaniline	0.356	0.301	0.291	0.337	0.303	0.332	0.350	0.356	0.332	0.329	7.53
76) T 4,6-Dinitro-o-cresol			0.168	0.203	0.212	0.263	0.285	0.300	0.308	*L	0.9982
77) T NDPA/DPA	1.502	1.304	1.165	1.267	1.112	1.256	1.247	1.245	1.253	1.261	8.51
78) T Azobenzene	1.440	1.309	1.095	1.233	1.093	1.238	1.207	1.226	1.252	1.232	8.53
79) S 2,4,6-Tribromophenol	0.235	0.245	0.198	0.225	0.198	0.229	0.233	0.235	0.239	0.226	7.54
80) T 4-Bromophenyl-phenylether	0.584	0.491	0.442	0.467	0.393	0.454	0.450	0.446	0.457	0.465	11.11
81) T Hexachlorobenzene	0.718	0.592	0.482	0.511	0.451	0.494	0.491	0.496	0.501	0.526	15.44
82) T Pentachlorophenol			0.264	0.266	0.325	0.342	0.351	0.363	0.319	13.63	
83) I IS2_Acenaphthene-d10	-----ISTD-----										
84) T Dichloran			0.159	0.136	0.167	0.178	0.191	0.212	0.226	0.181	17.26
85) T Pentachloronitrobenzene	0.204	0.162	0.193	0.163	0.184	0.199	0.199	0.210	0.226	0.193	10.85
86) I IS3_Acenaphthene-d10	-----ISTD-----										
87) T Atrazine		0.376	0.330	0.478	0.406	0.394	0.422	0.452	0.462	0.415	11.80
88) I IS1_Phenanthrene-d10	-----ISTD-----										
89) T Phenanthrene	1.504	1.339	1.033	1.155	1.048	1.124	1.097	1.144	1.118	1.174	12.95
90) T Anthracene	1.494	1.253	1.052	1.135	1.049	1.116	1.111	1.171	1.151	1.170	11.63
91) T Carbazole	1.297	1.044	0.920	1.035	0.962	1.045	1.035	1.090	1.056	1.054	9.94
92) T Di-n-butylphthalate	1.460	1.281	1.142	1.233	1.152	1.352	1.379	1.432	1.438	1.319	9.27
93) T Fluoranthene	1.613	1.418	1.239	1.306	1.215	1.347	1.322	1.385	1.336	1.353	8.60
94) T Benzidine			0.595	0.722	0.695	0.841	0.850	0.871	0.857	0.776	13.67
95) T Pyrene	1.693	1.490	1.310	1.402	1.290	1.410	1.405	1.444	1.408	1.428	8.18
96) S 4-Terphenyl-d14	1.298	1.156	0.979	1.043	0.954	1.059	1.053	1.072	1.048	1.073	9.45
97) T Butyl benzyl phthalate	0.554	0.490	0.442	0.498	0.483	0.600	0.617	0.646	0.660	0.555	14.35
98) I IS2_Phenanthrene-d10	-----ISTD-----										
99) T Diphenamid	0.461	0.460	0.464	0.452	0.481	0.530	0.521	0.569	0.607	0.505	10.94
100) I IS3_Phenanthrene-d10	-----ISTD-----										
101) T n-Octadecane		0.432	0.385	0.572	0.478	0.483	0.501	0.513	0.519	0.485	11.71
102) T Parathion		0.083	0.076	0.113	0.097	0.104	0.125	0.145	0.157	*Q	0.9979
103) T 3,3'-Dimethylbenzidine			0.800	0.702	0.747	0.896	0.958		0.821	12.85	
104) I IS1_Chrysene-d12	-----ISTD-----										
105) T Benzo[a]anthracene	1.766	1.533	1.218	1.308	1.238	1.316	1.294	1.390	1.349	1.379	12.46
106) T 3,3'-Dichlorobenzidine	0.462	0.427	0.372	0.440	0.426	0.468	0.473	0.516	0.494	0.453	9.40
107) T Chrysene	1.714	1.447	1.236	1.320	1.201	1.260	1.208	1.295	1.232	1.324	12.45
108) T bis(2-Ethylhexyl)phthalate	0.830	0.764	0.664	0.758	0.765	0.896	0.898	0.925	0.952	0.828	11.62



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Calibration dates : 10/09/24 20:07 10/11/24 15:53

Lab Number : L2468567
 Project Number : 12123
 Ical Ref : ICAL21604

Calibration Files

L1 =ADPL1.D L2 =ADPL2.D L3 =ADPL3.D L4 =ADPL4.D L5 =ABNL5.D L6 =ADPL6.D L7 =ADPL7.D
 L8 =ADPL8.D L9 =ADPL9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
109) T Di-n-octylphthalate	1.260	1.251	1.050	1.157	1.225	1.506	1.554	1.655	1.700	1.373	17.03
110) T Benzo(b)fluoranthene	1.483	1.369	1.200	1.339	1.248	1.285	1.347	1.364	1.342	1.331	6.09
111) T Benzo(k)fluoranthene	1.430	1.322	1.109	1.208	1.121	1.257	1.124	1.332	1.254	1.240	8.91
112) T Benzo(a)pyrene	1.236	1.183	0.962	1.139	1.084	1.160	1.144	1.266	1.223	1.155	7.93
113) I IS1_Perylene-d12	-----ISTD-----										
114) T Indeno(1,2,3-cd)pyrene	1.397	1.246	1.043	1.161	1.132	1.211	1.255	1.319	1.150	1.213	8.75
115) T Dibenzo[a,h]anthracene	1.310	1.235	1.009	1.135	1.085	1.161	1.154	1.202	1.089	1.153	7.73
116) T Benzo(g,h,i)perylene	1.280	1.167	0.971	1.084	1.022	1.086	1.080	1.122	0.906	1.080	10.10

Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : DAKOTA
Calibration dates : 11/05/24 16:59 11/06/24 04:17

Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21680

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =ABNL4.D L5 =AP9L5.D L6 =AP9L6.D L7 =AP9L7.D
 L8 =AP9L8.D L9 =AP9L9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
1) I IS1_1,4-Dichlorobenzene-d4	-----ISTD-----										
2) t N-Nitrosodimethylamine	0.688	0.547	0.631	0.657	0.592	0.619	0.625	0.637	0.677	0.630	6.87
3) t Pyridine	0.718	0.742	0.925	1.043	0.961	1.016	1.039	1.024	1.118	0.954	14.48
4) S 2-Fluorophenol	1.049	1.004	1.119	1.011	0.907	1.005	1.012	1.034	1.114	1.028	6.19
5) T Aniline	1.820	1.428	1.670	1.497	1.407	1.535	1.513	1.561	1.671	1.567	8.42
6) t 2-Chlorophenol	1.412	1.055	1.248	1.201	1.124	1.210	1.219	1.242	1.314	1.225	8.34
7) S Phenol-d6	1.562	1.289	1.387	1.281	1.108	1.276	1.276	1.308	1.365	1.317	9.16
8) T Phenol	1.717	1.324	1.459	1.383	1.257	1.388	1.373	1.397	1.488	1.421	9.16
9) T bis(2-Chloroethyl)ether	1.289	0.906	1.073	0.962	0.928	0.981	0.987	0.993	1.037	1.017	11.18
10) T 1,3-Dichlorobenzene	1.989	1.455	1.700	1.552	1.372	1.510	1.497	1.511	1.602	1.577	11.40
11) T 1,4-Dichlorobenzene	2.118	1.551	1.603	1.571	1.432	1.536	1.512	1.529	1.633	1.610	12.35
12) T 1,2-Dichlorobenzene	1.695	1.566	1.655	1.525	1.383	1.466	1.447	1.489	1.583	1.534	6.57
13) t Benzyl alcohol	1.016	0.858	0.891	0.896	0.818	0.912	0.930	0.995	1.055	0.930	8.32
14) T bis(2-chloroisopropyl)ether	2.239	1.745	1.843	1.773	1.610	1.706	1.707	1.728	1.793	1.794	9.98
15) T 2-Methylphenol	1.301	1.037	1.137	1.033	0.949	1.014	1.050	1.065	1.130	1.079	9.34
16) T Hexachloroethane	0.791	0.505	0.620	0.596	0.507	0.543	0.558	0.571	0.615	0.589	14.63
17) T n-Nitrosodi-n-propylamine	1.121	0.834	0.856	0.811	0.724	0.813	0.829	0.866	0.909	0.863	12.65
18) T 3-Methylphenol/4-Methylphenol	1.510	1.200	1.173	1.153	0.986	1.108	1.108	1.166	1.239	1.182	12.02
19) S Nitrobenzene-d5	1.239	1.148	1.175	1.191	1.071	1.176	1.187	1.238	1.328	1.195	5.92
20) T Nitrobenzene	1.353	1.122	1.287	1.162	1.081	1.203	1.212	1.254	1.326	1.222	7.51
21) T Isophorone	2.724	2.161	2.268	2.038	1.932	2.172	2.181	2.313	2.433	2.247	10.29
22) T 2-Nitrophenol	0.655	0.587	0.609	0.564	0.538	0.598	0.623	0.674	0.721	0.619	9.18
23) T 2,4-Dimethylphenol	1.368	1.006	1.085	1.051	0.963	1.062	1.074	1.108	1.188	1.101	10.75
24) T bis(2-Chloroethoxy)methane	1.605	1.319	1.550	1.332	1.236	1.352	1.353	1.401	1.451	1.400	8.36
25) T 2,4-Dichlorophenol	1.548	1.174	1.340	1.190	1.118	1.246	1.245	1.307	1.399	1.285	10.22
26) T 1,2,4-Trichlorobenzene	1.977	1.522	1.585	1.488	1.349	1.476	1.475	1.515	1.611	1.555	11.25
27) I IS2_1,4-Dichlorobenzene-d4	-----ISTD-----										
28) T Benzaldehyde	0.535	0.565	0.698	0.703	0.698	0.762	0.770	0.814	0.786	0.703	13.73
29) T Acetophenone	1.107	1.282	1.407	1.330	1.361	1.463	1.521	1.608	1.552	1.403	11.02
30) T m-Toluidine			1.080	1.092	1.257	1.323	1.390	1.457	1.409	1.287	11.76
31) T 2-Chloroaniline	1.078	1.270	1.369	1.264	1.363	1.427	1.471	1.559	1.510	1.368	10.81
32) I IS3_1,4-Dichlorobenzene-d4	-----ISTD-----										
33) T 1,4-Dioxane		0.252	0.402	0.398	0.392	0.404	0.400	0.409	0.392	0.381	13.71
34) t n-Nitrosodieth		0.349	0.372	0.347	0.382	0.401	0.414	0.437	0.420	0.390	8.57
35) T n-Decane	0.828	1.074	1.101	0.967	1.017	1.097	1.087	1.158	1.107	1.048	9.45
36) t n-Nitrosopyrro	0.287	0.406	0.461	0.431	0.441	0.486	0.521	0.550	0.537	0.458	17.68



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Instrument ID : DAKOTA Ical Ref : ICAL21680
 Calibration dates : 11/05/24 16:59 11/06/24 04:17

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =ABNL4.D L5 =AP9L5.D L6 =AP9L6.D L7 =AP9L7.D
 L8 =AP9L8.D L9 =AP9L9.D

Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
37) I IS1_Naphthalene-d8	-----ISTD-----										
38) T Naphthalene	1.453	1.116	1.167	1.048	0.965	1.022	1.010	1.038	1.082	1.100	13.19
39) T Benzoic Acid					0.170	0.206	0.226	0.257	0.279	0.228	18.76
40) T 4-Chloroaniline	0.150	0.114	0.123	0.117	0.108	0.118	0.114	0.119	0.125	0.121	9.98
41) T Hexachlorobutadiene	0.298	0.234	0.285	0.254	0.231	0.250	0.249	0.255	0.270	0.258	8.55
42) T p-Chloro-m-cresol	0.342	0.278	0.308	0.267	0.246	0.280	0.275	0.298	0.315	0.290	9.94
43) T 2-Methylnaphthalene	1.045	0.738	0.807	0.705	0.659	0.700	0.706	0.729	0.763	0.761	15.02
44) T 1-Methylnaphthalene	0.321	0.228	0.254	0.233	0.207	0.232	0.225	0.231	0.246	0.242	13.41
45) T Hexachlorocyclopentadiene	0.297	0.225	0.280	0.262	0.240	0.269	0.274	0.291	0.311	0.272	10.00
46) T 2,4,6-Trichlorophenol	0.326	0.279	0.279	0.267	0.250	0.278	0.282	0.300	0.320	0.287	8.51
47) T 2,4,5-Trichlorophenol	0.399	0.300	0.312	0.309	0.278	0.301	0.313	0.325	0.347	0.320	10.95
48) S 2-Fluorobiphenyl	1.386	0.978	1.052	0.941	0.852	0.912	0.902	0.920	0.968	0.990	16.04
49) T 2-Chloronaphthalene	1.113	0.897	0.884	0.813	0.728	0.799	0.774	0.811	0.853	0.852	13.02
50) T 2-Nitroaniline	0.220	0.198	0.212	0.207	0.184	0.216	0.223	0.243	0.260	0.218	10.43
51) T 1,4-Dinitrobenzene	0.093	0.063	0.090	0.090	0.086	0.094	0.101	0.113	0.122	0.095	17.69
52) T 1,3-Dinitrobenzene	0.108	0.093	0.120	0.105	0.098	0.114	0.117	0.129	0.137	0.113	12.53
53) T Dimethyl phthalate	1.318	0.991	1.021	0.936	0.866	0.923	0.912	0.953	0.998	0.991	13.29
54) T Acenaphthylene	1.586	1.204	1.302	1.203	1.092	1.183	1.181	1.230	1.286	1.252	11.14
55) T 2,6-Dinitrotoluene	0.192	0.157	0.185	0.174	0.167	0.186	0.187	0.201	0.215	0.185	9.50
56) T 1,2-Dinitrobenzene		0.043	0.065	0.067	0.062	0.070	0.069	0.073	0.080	0.066	16.02
57) I IS2_Naphthalene-d8	-----ISTD-----										
58) T a-Terpineol	0.162	0.210	0.212	0.213	0.210	0.235	0.239	0.261	0.251	0.221	13.16
59) T 3-Chloroaniline		0.086	0.112	0.111	0.106	0.125	0.121	0.129	0.125	0.115	12.17
60) T 2,6-Dichlorophenol	0.250	0.246	0.297	0.277	0.286	0.319	0.317	0.339	0.329	0.296	11.35
61) T 1-chloro-2-nitrobenzene	0.068	0.091	0.114	0.114	0.114	0.126	0.124	0.137	0.133	0.113	19.26
62) T Caprolactam	0.115	0.103	0.112	0.114	0.113	0.127	0.132	0.146	0.142	0.123	12.07
63) T 1,2,4,5-Tetrachlorobenzene	0.355	0.419	0.415	0.393	0.401	0.437	0.417	0.450	0.429	0.413	6.76
64) T Biphenyl	0.719	0.789	0.880	0.804	0.823	0.897	0.870	0.918	0.876	0.842	7.51
65) I IS1_Acenaphthene-d10	-----ISTD-----										
66) T 3-Nitroaniline	0.312	0.289	0.294	0.288	0.284	0.310	0.324	0.332	0.349	0.309	7.30
67) T Acenaphthene	1.665	1.203	1.195	1.092	1.004	1.062	1.049	1.077	1.122	1.163	17.13
68) T 2,4-Dinitrophenol				0.130	0.149	0.172	0.185	0.208	0.226	*L	0.9959
69) T Dibenzofuran	2.796	2.124	2.085	1.944	1.749	1.824	1.814	1.833	1.885	2.006	16.04
70) T 2,4-Dinitrotoluene	0.373	0.326	0.366	0.349	0.361	0.402	0.410	0.433	0.464	0.387	11.29
71) T 4-Nitrophenol	0.229	0.206	0.209	0.221	0.208	0.233	0.237	0.255	0.273	0.230	9.86
72) T 2,3,5,6-Tetrachlorophenol	0.465	0.419	0.459	0.406	0.390	0.425	0.429	0.454	0.481	0.436	6.86



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : DAKOTA
Calibration dates : 11/05/24 16:59 11/06/24 04:17
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21680

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =ABNL4.D L5 =AP9L5.D L6 =AP9L6.D L7 =AP9L7.D
 L8 =AP9L8.D L9 =AP9L9.D

	Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
73) T	2,3,4,6-Tetrachlorophenol	0.536	0.376	0.418	0.411	0.383	0.413	0.421	0.432	0.461	0.428	11.15
74) T	Diethyl phthalate	2.187	1.601	1.621	1.458	1.366	1.435	1.445	1.489	1.570	1.575	15.53
75) T	Fluorene	2.060	1.606	1.598	1.495	1.311	1.420	1.399	1.439	1.498	1.536	14.16
76) T	4-Chlorophenyl-phenylether	1.099	0.823	0.819	0.767	0.683	0.722	0.716	0.736	0.762	0.792	15.66
77) T	4-Nitroaniline	0.236	0.258	0.299	0.296	0.275	0.312	0.317	0.337	0.357	0.299	12.76
78) T	4,6-Dinitro-o-cresol	0.240	0.149	0.221	0.215	0.210	0.242	0.251	0.278	0.300	0.234	18.54
79) T	NDPA/DPA	1.902	1.355	1.398	1.272	1.134	1.220	1.202	1.245	1.300	1.337	16.94
80) T	Azobenzene	1.550	1.299	1.365	1.219	1.116	1.216	1.210	1.254	1.298	1.281	9.61
81) S	2,4,6-Tribromophenol	0.315	0.286	0.278	0.265	0.249	0.272	0.276	0.299	0.332	0.286	8.99
82) T	4-Bromophenyl-phenylether	0.722	0.544	0.560	0.476	0.442	0.474	0.474	0.485	0.517	0.522	16.10
83) T	Hexachlorobenzene	0.895	0.718	0.682	0.616	0.571	0.586	0.579	0.605	0.656	0.656	15.60
84) T	Pentachlorophenol	0.372	0.280	0.312	0.320	0.315	0.357	0.379	0.412	0.455	0.356	15.51
85) I	IS2_Acenaphthene-d10	-----ISTD-----										
86) T	Dichloran		0.151	0.132	0.142	0.146	0.165	0.185	0.214	0.217	0.169	19.47
87) T	Pentachloronitrobenzene			0.157	0.173	0.164	0.181	0.190	0.220	0.221	0.187	13.74
88) I	IS3_Acenaphthene-d10	-----ISTD-----										
89) T	Atrazine	0.307	0.322	0.368	0.285	0.313	0.342	0.350	0.401	0.400	0.343	11.90
90) I	IS1_Phenanthrene-d10	-----ISTD-----										
91) T	Phenanthrene	1.655	1.246	1.214	1.134	1.019	1.085	1.072	1.100	1.119	1.183	16.11
92) T	Anthracene	1.572	1.147	1.191	1.098	1.017	1.082	1.065	1.115	1.153	1.160	14.06
93) T	Carbazole	1.327	1.038	1.109	1.013	0.956	1.020	1.001	1.037	1.079	1.064	10.14
94) T	Di-n-butylphthalate	1.417	1.094	1.207	1.105	1.064	1.185	1.204	1.275	1.309	1.207	9.42
95) T	Fluoranthene	1.943	1.443	1.460	1.351	1.250	1.321	1.315	1.344	1.374	1.422	14.44
96) T	Benzydine	0.815	0.657	0.698	0.696	0.708	0.801	0.818	0.853	0.900	0.772	10.90
97) T	Pyrene	2.028	1.546	1.562	1.479	1.353	1.429	1.397	1.427	1.456	1.520	13.29
98) S	4-Terphenyl-d14	1.660	1.139	1.202	1.092	1.007	1.066	1.052	1.085	1.114	1.157	16.95
99) T	Butyl benzyl phthalate	0.567	0.415	0.479	0.447	0.453	0.520	0.541	0.594	0.635	0.517	14.34
100) I	IS2_Phenanthrene-d10	-----ISTD-----										
101) T	Diphenamid	0.347	0.380	0.392	0.377	0.390	0.434	0.456	0.494	0.474	0.416	12.13
102) I	IS3_Phenanthrene-d10	-----ISTD-----										
103) T	n-Octadecane	0.279	0.354	0.355	0.289	0.309	0.332	0.347	0.369	0.369	0.334	10.10
104) T	Parathion			0.076	0.062	0.069	0.074	0.086	0.106	0.115	*Q	0.9978
105) T	3,3'-Dimethylbenzidine				0.425	0.542	0.649	0.734	0.845	0.870	*L	0.9972
106) I	IS1_Chrysene-d12	-----ISTD-----										
107) T	Benzo[a]anthracene	1.869	1.383	1.408	1.283	1.164	1.251	1.262	1.278	1.301	1.355	15.16
108) T	3,3'-Dichlorobenzidine	0.587	0.439	0.489	0.467	0.455	0.503	0.519	0.533	0.552	0.505	9.52



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : DAKOTA
Calibration dates : 11/05/24 16:59 11/06/24 04:17
Lab Number : L2468567
Project Number : 12123
Ical Ref : ICAL21680

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =ABNL4.D L5 =AP9L5.D L6 =AP9L6.D L7 =AP9L7.D
 L8 =AP9L8.D L9 =AP9L9.D

	Compound	L1	L2	L3	L4	L5	L6	L7	L8	L9	Avg	%RSD
109) T	Chrysene	1.959	1.373	1.454	1.290	1.162	1.224	1.199	1.230	1.250	1.349	18.23
110) T	bis(2-Ethylhexyl)phthalate	0.831	0.597	0.665	0.632	0.630	0.732	0.775	0.822	0.855	0.726	13.56
111) T	Di-n-octylphthalate	1.380	1.021	1.044	1.017	1.027	1.217	1.316	1.411	1.473	1.212	15.54
112) T	Benzo(b)fluoranthene	1.822	1.402	1.469	1.372	1.282	1.313	1.333	1.348	1.437	1.420	11.43
113) T	Benzo(k)fluoranthene	1.743	1.264	1.425	1.314	1.209	1.355	1.362	1.367	1.409	1.383	10.93
114) T	Benzo(a)pyrene	1.495	1.196	1.246	1.206	1.127	1.232	1.262	1.289	1.349	1.267	8.34
115) I	IS1_Perylene-d12	-----ISTD-----										
116) T	Indeno(1,2,3-cd)pyrene	1.598	1.131	1.193	1.086	1.057	1.169	1.203	1.283	1.387	1.234	13.71
117) T	Dibenzo[a,h]anthracene	1.503	1.130	1.213	1.140	1.076	1.169	1.186	1.217	1.281	1.213	10.21
118) T	Benzo(g,h,i)perylene	1.547	1.172	1.230	1.097	1.024	1.118	1.137	1.171	1.234	1.192	12.43

Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : DAKOTA
 Lab File ID : ABN1124
 Sample No : WG2001636-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/24/24 08:42
 Init. Calib. Date(s) : 11/05/24 11/06/24
 Init. Calib. Times : 16:59 04:17

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS1_1,4-Dichlorobenzene-d4	1	1	-	0	20	96	0
n-Nitrosodimethylamine	0.63	0.717	-	-13.8	20	111	0
Pyridine	0.954	1.128	-	-18.2	20	106	0
2-Fluorophenol	1.028	1.093	-	-6.3	20	104	0
Aniline	1.567	1.723	-	-10	20	107	0
2-Chlorophenol	1.225	1.301	-	-6.2	20	103	0
Phenol-d6	1.317	1.434	-	-8.9	20	107	0
Phenol	1.421	1.567	-	-10.3	20	108	0
Bis(2-chloroethyl)ether	1.017	1.095	-	-7.7	20	107	0
1,3-Dichlorobenzene	1.577	1.613	-	-2.3	20	102	0
1,4-Dichlorobenzene	1.61	1.638	-	-1.7	20	102	0
1,2-Dichlorobenzene	1.534	1.609	-	-4.9	20	105	0
Benzyl alcohol	0.93	0.978	-	-5.2	20	103	0
Bis(2-chloroisopropyl)ethe	1.794	1.946	-	-8.5	20	109	0
2-Methylphenol	1.079	1.151	-	-6.7	20	109	0
Hexachloroethane	0.589	0.587	-	0.3	20	103	0
n-Nitrosodi-n-propylamine	0.863	0.869	-	-0.7	20	102	0
3-Methylphenol/4-Methylphe	1.182	1.225	-	-3.6	20	106	0
Nitrobenzene-d5	1.195	1.304	-	-9.1	20	106	0
Nitrobenzene	1.222	1.344	-	-10	20	107	0
Isophorone	2.247	2.26	-	-0.6	20	100	0
2-Nitrophenol	0.619	0.7	-	-13.1	20	112	0
2,4-Dimethylphenol	1.101	1.134	-	-3	20	102	0
Bis(2-chloroethoxy)methane	1.4	1.421	-	-1.5	20	100	0
2,4-Dichlorophenol	1.285	1.306	-	-1.6	20	100	0
1,2,4-Trichlorobenzene	1.555	1.528	-	1.7	20	99	0
IS1_Naphthalene-d8	1	1	-	0	20	98	0
Naphthalene	1.1	1.08	-	1.8	20	103	0
Benzoic Acid	0.228	0.159	-	30.3*	20	76	0
4-Chloroaniline	0.121	0.119	-	1.7	20	98	0
Hexachlorobutadiene	0.258	0.24	-	7	20	94	0
p-Chloro-m-cresol	0.29	0.289	-	0.3	20	101	0
2-Methylnaphthalene	0.761	0.738	-	3	20	103	0
1-Methylnaphthalene	0.242	0.234	-	3.3	20	98	0
Hexachlorocyclopentadiene	0.272	0.262	-	3.7	20	95	0
2,4,6-Trichlorophenol	0.287	0.28	-	2.4	20	98	0
2,4,5-Trichlorophenol	0.32	0.309	-	3.4	20	100	0
2-Fluorobiphenyl	0.99	0.903	-	8.8	20	97	0
2-Chloronaphthalene	0.852	0.808	-	5.2	20	99	0
2-Nitroaniline	0.218	0.223	-	-2.3	20	100	0
1,4-Dinitrobenzene	0.095	0.105	-	-10.5	20	108	0
1,3-Dinitrobenzene	0.113	0.12	-	-6.2	20	102	0
Dimethyl phthalate	0.991	0.895	-	9.7	20	95	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : DAKOTA
 Lab File ID : ABN1124
 Sample No : WG2001636-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/24/24 08:42
 Init. Calib. Date(s) : 11/05/24 11/06/24
 Init. Calib. Times : 16:59 04:17

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthylene	1.252	1.198	-	4.3	20	99	0
2,6-Dinitrotoluene	0.185	0.186	-	-0.5	20	98	0
1,2-Dinitrobenzene	0.066	0.072	-	-9.1	20	101	0
IS1_Acenaphthene-d10	1	1	-	0	20	95	0
3-Nitroaniline	0.309	0.338	-	-9.4	20	104	0
Acenaphthene	1.163	1.091	-	6.2	20	98	0
2,4-Dinitrophenol	0.188	0.157	-	16.5	20	87	0
Dibenzofuran	2.006	1.925	-	4	20	100	0
2,4-Dinitrotoluene	0.387	0.426	-	-10.1	20	101	0
4-Nitrophenol	0.23	0.265	-	-15.2	20	108	0
2,3,5,6-Tetrachlorophenol	0.436	0.447	-	-2.5	20	100	0
2,3,4,6-Tetrachlorophenol	0.428	0.435	-	-1.6	20	100	0
Diethyl phthalate	1.575	1.438	-	8.7	20	95	0
Fluorene	1.536	1.466	-	4.6	20	98	0
4-Chlorophenyl phenyl ethe	0.792	0.721	-	9	20	95	0
4-Nitroaniline	0.299	0.359	-	-20.1*	20	109	0
4,6-Dinitro-o-cresol	0.234	0.24	-	-2.6	20	95	0
NDPA/DPA	1.337	1.278	-	4.4	20	100	0
Azobenzene	1.281	1.284	-	-0.2	20	101	0
2,4,6-Tribromophenol	0.286	0.286	-	0	20	100	0
4-Bromophenyl phenyl ether	0.522	0.477	-	8.6	20	96	0
Hexachlorobenzene	0.656	0.576	-	12.2	20	94	0
Pentachlorophenol	0.356	0.399	-	-12.1	20	106	0
IS1_Phenanthrene-d10	1	1	-	0	20	94	0
Phenanthrene	1.183	1.152	-	2.6	20	99	0
Anthracene	1.16	1.17	-	-0.9	20	101	0
Carbazole	1.064	1.125	-	-5.7	20	103	0
Di-n-butylphthalate	1.207	1.141	-	5.5	20	90	0
Fluoranthene	1.422	1.426	-	-0.3	20	101	0
Benzidine	0.772	0.864	-	-11.9	20	101	0
Pyrene	1.52	1.541	-	-1.4	20	101	0
4-Terphenyl-d14	1.157	1.114	-	3.7	20	98	0
Butyl benzyl phthalate	0.517	0.545	-	-5.4	20	98	0
IS1_Chrysene-d12	1	1	-	0	20	101	0
Benzo(a)anthracene	1.355	1.316	-	2.9	20	106	0
3,3'-Dichlorobenzidine	0.505	0.533	-	-5.5	20	107	0
Chrysene	1.349	1.288	-	4.5	20	106	0
Bis(2-ethylhexyl)phthalate	0.726	0.694	-	4.4	20	95	0
Di-n-octylphthalate	1.212	1.208	-	0.3	20	100	0
Benzo(b)fluoranthene	1.42	1.452	-	-2.3	20	111	0
Benzo(k)fluoranthene	1.383	1.47	-	-6.3	20	109	0
Benzo(a)pyrene	1.267	1.368	-	-8	20	112	0
IS1_Perylene-d12	1	1	-	0	20	106	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : DAKOTA
 Lab File ID : ABN1124
 Sample No : WG2001636-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/24/24 08:42
 Init. Calib. Date(s) : 11/05/24 11/06/24
 Init. Calib. Times : 16:59 04:17

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Indeno(1,2,3-cd)pyrene	1.234	1.239	-	-0.4	20	113	0
Dibenzo(a,h)anthracene	1.213	1.242	-	-2.4	20	113	0
Benzo(ghi)perylene	1.192	1.221	-	-2.4	20	116	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Lab File ID : ABN1126N
 Sample No : WG2002830-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 00:46
 Init. Calib. Date(s) : 10/09/24 10/11/24
 Init. Calib. Times : 20:07 15:53

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS1_1,4-Dichlorobenzene-d4	1	1	-	0	20	104	0
n-Nitrosodimethylamine	0.76	0.638	-	16.1	20	88	0
Pyridine	1.219	0.998	-	18.1	20	86	0
2-Fluorophenol	1.245	1.12	-	10	20	95	0
Aniline	1.771	1.621	-	8.5	20	93	0
2-Chlorophenol	1.365	1.3	-	4.8	20	97	0
Phenol-d6	1.498	1.32	-	11.9	20	93	0
Phenol	1.555	1.43	-	8	20	95	0
Bis(2-chloroethyl)ether	1.28	1.093	-	14.6	20	88	0
1,3-Dichlorobenzene	1.669	1.555	-	6.8	20	99	0
1,4-Dichlorobenzene	1.7	1.557	-	8.4	20	98	0
1,2-Dichlorobenzene	1.63	1.492	-	8.5	20	96	0
Benzyl alcohol	1.06	0.951	-	10.3	20	93	0
Bis(2-chloroisopropyl)ethe	2.014	1.295	-	35.7*	20	68	0
2-Methylphenol	1.123	1.06	-	5.6	20	97	0
Hexachloroethane	0.614	0.57	-	7.2	20	99	0
n-Nitrosodi-n-propylamine	0.94	0.809	-	13.9	20	88	0
3-Methylphenol/4-Methylphe	1.225	1.147	-	6.4	20	95	0
Nitrobenzene-d5	1.359	1.236	-	9.1	20	93	0
Nitrobenzene	1.389	1.227	-	11.7	20	92	0
Isophorone	2.416	2.147	-	11.1	20	90	0
2-Nitrophenol	0.713	0.713	-	0	20	98	0
2,4-Dimethylphenol	1.119	1.057	-	5.5	20	98	0
Bis(2-chloroethoxy)methane	1.614	1.461	-	9.5	20	92	0
2,4-Dichlorophenol	1.25	1.246	-	0.3	20	99	0
1,2,4-Trichlorobenzene	1.449	1.375	-	5.1	20	101	0
IS1_Naphthalene-d8	1	1	-	0	20	107	0
Naphthalene	1.129	0.997	-	11.7	20	98	0
Benzoic Acid	5	4.535	-	9.3	20	95	0
4-Chloroaniline	0.127	0.11	-	13.4	20	91	0
Hexachlorobutadiene	0.239	0.229	-	4.2	20	102	0
p-Chloro-m-cresol	0.296	0.282	-	4.7	20	99	0
2-Methylnaphthalene	0.752	0.688	-	8.5	20	98	0
1-Methylnaphthalene	0.243	0.232	-	4.5	20	105	0
Hexachlorocyclopentadiene	0.262	0.18	-	31.3*	20	74	0
2,4,6-Trichlorophenol	0.275	0.262	-	4.7	20	98	0
2,4,5-Trichlorophenol	0.285	0.274	-	3.9	20	102	0
2-Fluorobiphenyl	0.926	0.834	-	9.9	20	97	0
2-Chloronaphthalene	0.785	0.722	-	8	20	100	0
2-Nitroaniline	0.223	0.219	-	1.8	20	100	0
1,4-Dinitrobenzene	0.114	0.11	-	3.5	20	96	0
1,3-Dinitrobenzene	0.125	0.125	-	0	20	98	0
Dimethyl phthalate	0.915	0.864	-	5.6	20	98	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Lab File ID : ABN1126N
 Sample No : WG2002830-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 00:46
 Init. Calib. Date(s) : 10/09/24 10/11/24
 Init. Calib. Times : 20:07 15:53

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthylene	1.17	1.095	-	6.4	20	99	0
2,6-Dinitrotoluene	0.186	0.187	-	-0.5	20	98	0
1,2-Dinitrobenzene	0.081	0.077	-	4.9	20	96	0
IS1_Acenaphthene-d10	1	1	-	0	20	103	0
3-Nitroaniline	0.323	0.338	-	-4.6	20	104	0
Acenaphthene	1.157	1.061	-	8.3	20	98	0
2,4-Dinitrophenol	5	2.954	-	40.9*	20	47	0
Dibenzofuran	1.872	1.703	-	9	20	99	0
2,4-Dinitrotoluene	0.419	0.427	-	-1.9	20	100	0
4-Nitrophenol	0.239	0.233	-	2.5	20	93	0
2,3,5,6-Tetrachlorophenol	0.39	0.404	-	-3.6	20	102	0
2,3,4,6-Tetrachlorophenol	0.385	0.393	-	-2.1	20	101	0
Diethyl phthalate	1.518	1.455	-	4.2	20	101	0
Fluorene	1.462	1.402	-	4.1	20	101	0
4-Chlorophenyl phenyl ethe	0.75	0.701	-	6.5	20	100	0
4-Nitroaniline	0.329	0.326	-	0.9	20	101	0
4,6-Dinitro-o-cresol	5	3.513	-	29.7*	20	75	0
NDPA/DPA	1.261	1.232	-	2.3	20	101	0
Azobenzene	1.232	1.154	-	6.3	20	96	0
2,4,6-Tribromophenol	0.226	0.23	-	-1.8	20	103	0
4-Bromophenyl phenyl ether	0.465	0.446	-	4.1	20	101	0
Hexachlorobenzene	0.526	0.514	-	2.3	20	107	0
Pentachlorophenol	0.319	0.324	-	-1.6	20	102	0
IS1_Phenanthrene-d10	1	1	-	0	20	104	0
Phenanthrene	1.174	1.083	-	7.8	20	100	0
Anthracene	1.17	1.108	-	5.3	20	103	0
Carbazole	1.054	1.008	-	4.4	20	100	0
Di-n-butylphthalate	1.319	1.276	-	3.3	20	98	0
Fluoranthene	1.353	1.302	-	3.8	20	100	0
Benzidine	0.776	0.659	-	15.1	20	81	0
Pyrene	1.428	1.374	-	3.8	20	101	0
4-Terphenyl-d14	1.073	0.989	-	7.8	20	97	0
Butyl benzyl phthalate	0.555	0.558	-	-0.5	20	97	0
IS1_Chrysene-d12	1	1	-	0	20	97	0
Benzo(a)anthracene	1.379	1.23	-	10.8	20	91	0
3,3'-Dichlorobenzidine	0.453	0.412	-	9.1	20	86	0
Chrysene	1.324	1.199	-	9.4	20	93	0
Bis(2-ethylhexyl)phthalate	0.828	0.861	-	-4	20	94	0
Di-n-octylphthalate	1.373	1.384	-	-0.8	20	89	0
Benzo(b)fluoranthene	1.331	1.219	-	8.4	20	92	0
Benzo(k)fluoranthene	1.24	1.099	-	11.4	20	85	0
Benzo(a)pyrene	1.155	1.031	-	10.7	20	87	0
IS1_Perylene-d12	1	1	-	0	20	90	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Lab File ID : ABN1126N
 Sample No : WG2002830-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 00:46
 Init. Calib. Date(s) : 10/09/24 10/11/24
 Init. Calib. Times : 20:07 15:53

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Indeno(1,2,3-cd)pyrene	1.213	0.998	-	17.7	20	74	0
Dibenzo(a,h)anthracene	1.153	0.949	-	17.7	20	74	0
Benzo(ghi)perylene	1.08	0.951	-	11.9	20	79	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV106
 Lab File ID : AP91126N
 Sample No : WG2002830-4
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 01:10
 Init. Calib. Date(s) : 10/09/24 10/11/24
 Init. Calib. Times : 20:07 15:53

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS2_1,4-Dichlorobenzene-d4	1	1	-	0	20	104	0
Benzaldehyde	0.948	0.804	-	15.2	20	86	0
Acetophenone	1.829	1.646	-	10	20	95	0
m-Toluidine	1.612	1.412	-	12.4	20	90	0
2-Chloroaniline	1.609	1.537	-	4.5	20	97	0
IS2_Naphthalene-d8	1	1	-	0	20	107	0
a-Terpineol	0.282	0.218	-	22.7*	20	83	0
3-Chloroaniline	0.132	0.119	-	9.8	20	92	0
2,6-Dichlorophenol	0.3	0.292	-	2.7	20	101	0
1-chloro-2-nitrobenzene	0.145	0.134	-	7.6	20	98	0
Caprolactam	0.147	0.114	-	22.4*	20	81	0
1,2,4,5-Tetrachlorobenzene	0.402	0.378	-	6	20	102	0
Biphenyl	0.907	0.826	-	8.9	20	96	0
IS2_Acenaphthene-d10	1	1	-	0	20	110	0
Dichloran	0.181	0.168	-	7.2	20	103	0
Pentachloronitrobenzene	0.193	0.201	-	-4.1	20	111	0
IS2_Phenanthrene-d10	1	1	-	0	20	104	0
Diphenamid	0.505	0.473	-	6.3	20	93	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV107
 Lab File ID : ABN1127
 Sample No : WG2003240-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 12:33
 Init. Calib. Date(s) : 07/30/24 07/31/24
 Init. Calib. Times : 19:25 07:43

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS1_1,4-Dichlorobenzene-d4	1	1	-	0	20	95	0
n-Nitrosodimethylamine	0.71	0.781	-	-10	20	104	0
Pyridine	1.086	1.314	-	-21*	20	105	0
2-Fluorophenol	1.08	1.182	-	-9.4	20	104	0
Aniline	1.765	1.899	-	-7.6	20	110	0
2-Chlorophenol	1.294	1.339	-	-3.5	20	104	0
Phenol-d6	1.413	1.554	-	-10	20	112	0
Phenol	1.566	1.639	-	-4.7	20	108	0
Bis(2-chloroethyl)ether	1.247	1.269	-	-1.8	20	109	0
1,3-Dichlorobenzene	1.587	1.497	-	5.7	20	97	0
1,4-Dichlorobenzene	1.599	1.514	-	5.3	20	98	0
1,2-Dichlorobenzene	1.562	1.476	-	5.5	20	99	0
Benzyl alcohol	1.01	1.182	-	-17	20	123	0
Bis(2-chloroisopropyl)ethe	1.617	1.925	-	-19	20	126	0
2-Methylphenol	1.126	1.153	-	-2.4	20	110	0
Hexachloroethane	0.563	0.614	-	-9.1	20	108	0
n-Nitrosodi-n-propylamine	0.862	1.023	-	-18.7	20	126	0
3-Methylphenol/4-Methylphe	1.241	1.282	-	-3.3	20	112	0
Nitrobenzene-d5	1.368	1.507	-	-10.2	20	116	0
Nitrobenzene	1.312	1.505	-	-14.7	20	119	0
Isophorone	2.344	2.644	-	-12.8	20	119	0
2-Nitrophenol	0.667	0.732	-	-9.7	20	118	0
2,4-Dimethylphenol	1.081	1.232	-	-14	20	177	0
Bis(2-chloroethoxy)methane	1.585	1.631	-	-2.9	20	113	0
2,4-Dichlorophenol	1.18	1.193	-	-1.1	20	106	0
1,2,4-Trichlorobenzene	1.405	1.323	-	5.8	20	101	0
IS1_Naphthalene-d8	1	1	-	0	20	94	0
Naphthalene	1.132	1.058	-	6.5	20	100	0
Benzoic Acid	5	6.578	-	-31.6*	20	155	0
4-Chloroaniline	0.126	0.145	-	-15.1	20	112	0
Hexachlorobutadiene	0.224	0.239	-	-6.7	20	109	0
p-Chloro-m-cresol	0.283	0.34	-	-20.1*	20	124	0
2-Methylnaphthalene	0.737	0.7	-	5	20	100	0
1-Methylnaphthalene	0.238	0.261	-	-9.7	20	113	0
Hexachlorocyclopentadiene	0.212	0.265	-	-25*	20	126	0
2,4,6-Trichlorophenol	0.234	0.285	-	-21.8*	20	122	0
2,4,5-Trichlorophenol	0.249	0.293	-	-17.7	20	116	0
2-Fluorobiphenyl	0.9	0.844	-	6.2	20	103	0
2-Chloronaphthalene	0.763	0.719	-	5.8	20	104	0
2-Nitroaniline	0.204	0.239	-	-17.2	20	124	0
1,4-Dinitrobenzene	0.11	0.122	-	-10.9	20	128	0
1,3-Dinitrobenzene	0.129	0.129	-	0	20	115	0
Dimethyl phthalate	0.863	0.899	-	-4.2	20	115	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV107
 Lab File ID : ABN1127
 Sample No : WG2003240-3
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 12:33
 Init. Calib. Date(s) : 07/30/24 07/31/24
 Init. Calib. Times : 19:25 07:43

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthylene	1.132	1.139	-	-0.6	20	109	0
2,6-Dinitrotoluene	0.169	0.194	-	-14.8	20	119	0
1,2-Dinitrobenzene	0.077	0.082	-	-6.5	20	113	0
IS1_Acenaphthene-d10	1	1	-	0	20	101	0
3-Nitroaniline	0.32	0.355	-	-10.9	20	115	0
Acenaphthene	1.138	1.08	-	5.1	20	107	0
2,4-Dinitrophenol	5	4.253	-	14.9	20	113	0
Dibenzofuran	1.879	1.732	-	7.8	20	107	0
2,4-Dinitrotoluene	0.408	0.441	-	-8.1	20	120	0
4-Nitrophenol	0.253	0.329	-	-30*	20	139	0
2,3,5,6-Tetrachlorophenol	0.341	0.387	-	-13.5	20	116	0
2,3,4,6-Tetrachlorophenol	0.325	0.377	-	-16	20	115	0
Diethyl phthalate	1.327	1.453	-	-9.5	20	127	0
Fluorene	1.404	1.401	-	0.2	20	113	0
4-Chlorophenyl phenyl ethe	0.713	0.685	-	3.9	20	110	0
4-Nitroaniline	0.32	0.345	-	-7.8	20	116	0
4,6-Dinitro-o-cresol	5	5.141	-	-2.8	20	142	0
NDPA/DPA	1.166	1.2	-	-2.9	20	115	0
Azobenzene	1.226	1.466	-	-19.6	20	132	0
2,4,6-Tribromophenol	0.187	0.187	-	0	20	111	0
4-Bromophenyl phenyl ether	0.385	0.396	-	-2.9	20	118	0
Hexachlorobenzene	0.425	0.428	-	-0.7	20	114	0
Pentachlorophenol	5	3.605	-	27.9*	20	86	0
IS1_Phenanthrene-d10	1	1	-	0	20	110	0
Phenanthrene	1.151	1.077	-	6.4	20	116	0
Anthracene	1.089	1.111	-	-2	20	123	0
Carbazole	0.994	1.017	-	-2.3	20	121	0
Di-n-butylphthalate	1.094	1.231	-	-12.5	20	143	0
Fluoranthene	1.261	1.28	-	-1.5	20	123	0
Benzidine	5	5.333	-	-6.7	20	164	0
Pyrene	1.372	1.356	-	1.2	20	121	0
4-Terphenyl-d14	0.946	0.865	-	8.6	20	115	0
Butyl benzyl phthalate	5	4.938	-	1.2	20	161	0
IS1_Chrysene-d12	1	1	-	0	20	113	0
Benzo(a)anthracene	1.453	1.408	-	3.1	20	119	0
3,3'-Dichlorobenzidine	5	4.793	-	4.1	20	134	0
Chrysene	1.403	1.331	-	5.1	20	117	0
Bis(2-ethylhexyl)phthalate	5	5.69	-	-13.8	20	152	0
Di-n-octylphthalate	5	5.691	-	-13.8	20	178	0
Benzo(b)fluoranthene	1.251	1.264	-	-1	20	119	0
Benzo(k)fluoranthene	1.251	1.248	-	0.2	20	110	0
Benzo(a)pyrene	1.101	1.177	-	-6.9	20	120	0
IS1_Perylene-d12	1	1	-	0	20	104	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV107
 Lab File ID : ABN1127
 Sample No : WG2003240-3
 Channel :

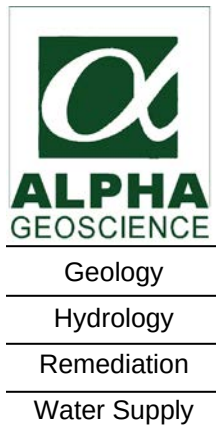
Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 11/27/24 12:33
 Init. Calib. Date(s) : 07/30/24 07/31/24
 Init. Calib. Times : 19:25 07:43

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Indeno(1,2,3-cd)pyrene	1.098	1.109	-	-1	20	108	0
Dibenzo(a,h)anthracene	1.056	1.065	-	-0.9	20	107	0
Benzo(ghi)perylene	0.977	1.034	-	-5.8	20	105	0

* Value outside of QC limits.



SVOC SIM Data Section



**QA/QC Review of Method 8270D SIM Semi-Volatiles
Data for Alpha Analytical, SDG Number: L2468567**

**11 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were extracted and analyzed within USEPA SW-846 holding times.

GC/MS Tuning and Mass Calibration: The DFTPP tuning criteria were within control limits.

Initial Calibration: The average RRFs for target compounds were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for target compounds were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: Method blank WG2001577-1BLANK contained traces of fluoranthene (0.03 ug/L) and phenanthrene (0.04 ug/L). Method blank WG2002128-1BLANK contained a trace of 2-methylnaphthalene (0.05 ug/L). FIELD BLANK contained a trace of naphthalene (0.04 ug/L). Positive results for these compounds that are less than 5 times the highest blank level should be considered not detected (U) in associated samples.

Method blank WG2002128-1BLANK contained an unacceptable level of naphthalene (0.93 ug/L). Positive results for naphthalene that are less than 10 times the method blank level should be considered rejected, unusable (R) in associated samples.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples, field blank, and equipment blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target compounds were below the allowable maximum, but 1 of 2 percent recoveries for pentachlorophenol was above QC limits aqueous MS/MSD sample MW-9B. Sample MW-9B reported pentachlorophenol as “not detected”; therefore, no action is taken.

Laboratory Control Sample: The relative percent differences for target compounds were below the allowable maximum and percent recoveries were within QC limits for aqueous samples WG2001577-2/3, WG2002128-2/3, and WG2002532-2/3.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported target compounds either as not detected or below the lowest standard; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked compound and surrogate results were within GC/MS quantitation limits.

Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-9B**
 Lab Sample ID : L2468567-11
 Matrix Spike : WG2002532-4
 Matrix Spike Dup : WG2002532-5

Lab Number : L2468567
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 11/27/24 08:48
 MS Analysis Date : 11/27/24 09:05
 MSD Analysis Date : 11/27/24 09:22

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (ug/l)	Spike Conc. (ug/l)	%R	Spike Added (ug/l)	Spike Conc. (ug/l)	%R			
Acenaphthene	ND	20	14	70	20	16	80	13	40-140	40
2-Chloronaphthalene	ND	20	14	70	20	15	75	7	40-140	40
Fluoranthene	ND	20	19	95	20	21	110	10	40-140	40
Hexachlorobutadiene	ND	20	11	55	20	11	55	0	40-140	40
Naphthalene	0.05J	20	13	65	20	13	65	0	40-140	40
Benzo(a)anthracene	ND	20	18	90	20	20	100	11	40-140	40
Benzo(a)pyrene	ND	20	21	110	20	23	120	9	40-140	40
Benzo(b)fluoranthene	ND	20	22	110	20	24	120	9	40-140	40
Benzo(k)fluoranthene	ND	20	21	110	20	23	120	9	40-140	40
Chrysene	ND	20	20	100	20	21	110	5	40-140	40
Acenaphthylene	ND	20	16	80	20	17	85	6	40-140	40
Anthracene	ND	20	18	90	20	20	100	11	40-140	40
Benzo(ghi)perylene	ND	20	21	110	20	23	120	9	40-140	40
Fluorene	ND	20	16	80	20	18	90	12	40-140	40
Phenanthrene	ND	20	17	85	20	19	95	11	40-140	40
Dibenzo(a,h)anthracene	ND	20	22	110	20	24	120	9	40-140	40
Indeno(1,2,3-cd)pyrene	ND	20	23	120	20	26	130	12	40-140	40
Pyrene	ND	20	19	95	20	21	110	10	40-140	40
2-Methylnaphthalene	ND	20	14	70	20	14	70	0	40-140	40
Pentachlorophenol	ND	20	27	140	20	30	150 Q	11	40-140	40
Hexachlorobenzene	ND	20	15	75	20	17	85	13	40-140	40
Hexachloroethane	ND	20	12	60	20	12	60	0	40-140	40



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience	Lab Number : L2468567
Project Name : RANCO MINE	Project Number : 12123
Lab ID : WG2001577-1	Date Collected : NA
Client ID : WG2001577-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 11/24/24 15:00
Sample Matrix : WATER	Date Extracted : 11/23/24
Analytical Method : 1,8270E-SIM	Dilution Factor : 1
Lab File ID : 001577-1	Analyst : DV
Sample Amount : 100 ml	Instrument ID : SV125
Extraction Method : EPA 3510C	GC Column : RXI-5SiLM
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	0.03	0.10	0.03	J
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	ND	0.10	0.02	U
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	0.04	0.10	0.04	J
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	ND	0.10	0.03	U
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience	Lab Number : L2468567
Project Name : RANCO MINE	Project Number : 12123
Lab ID : WG2002128-1	Date Collected : NA
Client ID : WG2002128-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 11/26/24 18:41
Sample Matrix : WATER	Date Extracted : 11/25/24
Analytical Method : 1,8270E-SIM	Dilution Factor : 1
Lab File ID : 002128-1	Analyst : DV
Sample Amount : 100 ml	Instrument ID : SV120
Extraction Method : EPA 3510C	GC Column : RXI-5SiLM
Extract Volume : 1000 uL	%Solids : N/A
GPC Cleanup : N	Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	ND	0.10	0.02	U
91-58-7	2-Chloronaphthalene	ND	0.20	0.02	U
206-44-0	Fluoranthene	ND	0.10	0.03	U
87-68-3	Hexachlorobutadiene	ND	0.50	0.02	U
91-20-3	Naphthalene	0.93	0.10	0.02	
56-55-3	Benzo(a)anthracene	ND	0.10	0.03	U
50-32-8	Benzo(a)pyrene	ND	0.10	0.02	U
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.03	U
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.03	U
218-01-9	Chrysene	ND	0.10	0.03	U
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	ND	0.10	0.02	U
191-24-2	Benzo(ghi)perylene	ND	0.10	0.02	U
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	ND	0.10	0.04	U
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.02	U
129-00-0	Pyrene	ND	0.10	0.04	U
91-57-6	2-Methylnaphthalene	0.05	0.10	0.03	J
87-86-5	Pentachlorophenol	ND	0.80	0.06	U
118-74-1	Hexachlorobenzene	ND	0.80	0.01	U
67-72-1	Hexachloroethane	ND	0.80	0.02	U



1,4-Dioxane

Data Section



**QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for Alpha Analytical, SDG Number: L2468567**

**4 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Geology
Hydrology
Remediation
Water Supply

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Initial Calibration: The average RRFs for 1,4-dioxane were above the allowable minimum (0.010) and the %RSDs were below the allowable maximum (30%), as required.

Continuing Calibration: The RRFs for 1,4-dioxane were above the allowable minimum (0.010) and the %Ds were below the allowable maximum (20%), as required.

Blanks: The analyses of the method and field blanks reported 1,4-dioxane as not detected.

Internal Standard Area Summary: The internal standard areas and retention times were within control limits.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples and field blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-9B.

Laboratory Control Sample: The relative percent difference for 1,4-dioxane was below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG2001606-2/3.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported 1,4-dioxane as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Compound ID: Checked surrogate results were within quantitation limits. The analyses of the ground water samples reported 1,4-dioxane as not detected.

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PFAS

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 1633 PFAS Data
for Alpha Analytical Labs SDG Number: L2468567**

**4 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: The samples were analyzed within USEPA holding times.

Initial Calibration: The %RSDs for applicable PFASs were below the method maximum (20%) or the R or R squared were above the method minimums, as required.

Continuing Calibration: The percent recovery for NFDHA was above QC limits (70-130%) on 12-18-24 (WG2010521-1). Positive results for NFDHA should be considered estimated (J) in associated samples.

Blanks: The analyses of method and field blanks reported target PFAS as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits for the ground water samples and field blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target PFAS were above the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-9B.

Laboratory Control Sample: The percent recovery for 3:3FTCA was above QC limits for aqueous sample WG2009856-2. Positive results for 3:3FTCA should be considered estimated, biased high (J+) in associated aqueous samples.

Field Duplicates: The relative percent differences for PFOA and PFOS were below the allowable maximum (20%) for aqueous field duplicate pair MW-6A/DUP (attached table), as required.

Compound ID: Checked detected surrogate and detected results were within LC quantitation limits.

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Laboratory Control Sample (Low Level) Summary

Form 3

Semivolatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Matrix (Level) : WATER ()
 LCS Sample ID : **WG2009856-2** Analysis Date : 12/18/24 10:38 File ID : SCI09_241218_36.wiff2
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)			RPD	Recovery Limits	RPD Limit
	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R			
Perfluorobutanoic Acid (PFBA)	12.8	16.4	128				-	70-140	30
Perfluoropentanoic Acid (PFPeA)	6.4	8.10	127				-	65-135	30
Perfluorobutanesulfonic Acid (PFBS)	2.84	3.36	118				-	60-145	30
1H,1H,2H,2H-Perfluorohexanesulfon ic Acid (4:2FTS)		13.4	112				-	70-145	30
Perfluorohexanoic Acid (PFHxA)	3.2	4.25	133				-	70-145	30
Perfluoropentanesulfonic Acid (PFPeS)	3.01	3.18	106				-	65-140	30
Perfluoroheptanoic Acid (PFHpA)	3.2	3.16	99				-	70-150	30
Perfluorohexanesulfonic Acid (PFHxS)	2.93	3.58	122				-	65-145	30
Perfluorooctanoic Acid (PFOA)	3.2	4.15	130				-	70-150	30
1H,1H,2H,2H-Perfluorooctanesulfon ic Acid (6:2FTS)		14.8	122				-	65-155	30
Perfluoroheptanesulfonic Acid (PFHpS)	3.05	4.03	132				-	70-150	30
Perfluorononanoic Acid (PFNA)	3.2	4.26	133				-	70-150	30
Perfluorooctanesulfonic Acid	2.97	3.59	121				-	55-150	30



Laboratory Control Sample (Low Level) Summary

Form 3

Semivolatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Matrix (Level) : WATER ()
 LCS Sample ID : **WG2009856-2** Analysis Date : 12/18/24 10:38 File ID : SCI09_241218_36.wiff2
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)			RPD	Recovery Limits	RPD Limit
	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R			
(PFOS)									
Perfluorodecanoic Acid (PFDA)	3.2	4.14	129				-	70-140	30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	12.3	15.3	125				-	60-150	30
Perfluorononanesulfonic Acid	3.08	3.30	107				-	65-145	30
(PFNS)									
N-Methyl Perfluorooctanesulfonamide	3.2	4.26	133				-	50-140	30
N-Methyl Perfluoroundecanoic Acid (NMeFOSAA)									
Perfluoroundecanoic Acid (PFUnA)	3.2	3.77	118				-	70-145	30
Perfluorodecanesulfonic Acid	3.08	3.06	99				-	60-145	30
(PFDS)									
Perfluorooctanesulfonamide	3.2	3.81	119				-	70-145	30
(PFOSA)									
N-Ethyl Perfluorooctanesulfonamide	3.2	4.05	126				-	70-145	30
N-Ethyl Perfluorododecanoic Acid (NEtFOSAA)									
Perfluorododecanoic Acid (PFDoA)	3.2	4.26	133				-	70-140	30
Perfluorotridecanoic Acid	3.2	4.40	138				-	65-140	30
(PFTTrDA)									



Laboratory Control Sample (Low Level) Summary

Form 3

Semivolatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Matrix (Level) : WATER ()
 LCS Sample ID : **WG2009856-2** Analysis Date : 12/18/24 10:38 File ID : SCI09_241218_36.wiff2
 LCSD Sample ID : Analysis Date : File ID :

Parameter	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)			RPD	Recovery Limits	RPD Limit
	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R			
Perfluorotetradecanoic Acid (PFTeDA)	3.2	4.26	133				-	60-140	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	12.8	17.2	134				-	70-140	30
4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	12.1	10.3	85				-	65-145	30
Perfluorododecanesulfonic Acid (PFDoS)	3.11	2.83	91				-	50-145	30
9-Chlorohexadecafluoro-3-Oxanone- 1-Sulfonic Acid (9CI-PF3ONS)	11.9	15.9	133				-	70-155	30
11-Chloroeicosafluoro-3-Oxaundeca- ne-1-Sulfonic Acid (11CI-PF3OUdS)	12.1	14.0	116				-	55-160	30
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	3.2	3.93	123				-	60-150	30
N-Ethyl Perfluorooctane Sulfonami- de (NEtFOSA)	3.2	3.90	122				-	65-145	30
N-Methyl Perfluorooctanesulfonami	32	39.1	122				-	70-145	30



Laboratory Control Sample (Low Level) Summary

Form 3

Semivolatiles

Client : Alpha Geoscience Lab Number : L2468567
 Project Name : RANCO MINE Project Number : 12123
 Matrix (Level) : WATER ()
 LCS Sample ID : **WG2009856-2** Analysis Date : 12/18/24 10:38 File ID : SCI09_241218_36.wiff2
 LCSD Sample ID : Analysis Date : File ID :

	Laboratory Control Sample (LOW)			Laboratory Control Duplicate (LOW)					
Parameter	True (ng/l)	Found (ng/l)	%R	True (ng/l)	Found (ng/l)	%R	RPD	Recovery Limits	RPD Limit
do Ethanol (NMeFOSE)									
N-Ethyl Perfluorooctanesulfonamid	32	39.8	124				-	70-135	30
o Ethanol (NEtFOSE)									
Perfluoro-3-Methoxypropanoic Acid	6.4	7.08	111				-	55-140	30
(PFMPA)									
Perfluoro-4-Methoxybutanoic Acid	6.4	7.42	116				-	60-150	30
(PFMBA)									
Perfluoro(2-Ethoxyethane)Sulfonic	5.71	7.62	134				-	70-140	30
Acid (PFEESA)									
Nonafluoro-3,6-Dioxaheptanoic	6.4	8.69	136				-	50-150	30
Acid (NFDHA)									
3-Perfluoropropyl Propanoic Acid	16	23.3	146 Q				-	65-130	30
(3:3FTCA)									
2H,2H,3H,3H-Perfluorooctanoic	80	108	135				-	70-135	30
Acid (5:3FTCA)									
3-Perfluoroheptyl Propanoic Acid	80	96.2	120				-	50-145	30
(7:3FTCA)									



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : LCMS09
 Lab File ID : SCI09_241218_06
 Sample No : WG2010521-1
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 12/18/24 05:43
 Init. Calib. Date(s) : 11/12/24 11/12/24
 Init. Calib. Times : 13:47 14:58

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
Perfluorobutanoic Acid (PFBA)	0.830	0.800	103.7	70-130
Perfluoropentanoic Acid (PFPeA)	0.405	0.400	101.3	70-130
Perfluorobutanesulfonic Acid (PFBS)	0.197	0.177	110.5	70-130
Perfluorohexanoic Acid (PFHxA)	0.227	0.200	113.7	70-130
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	0.817	0.750	108.9	70-130
Perfluoropentanesulfonic Acid (PFPeS)	0.200	0.188	106.3	70-130
Perfluoroheptanoic Acid (PFHpA)	0.212	0.200	106.1	70-130
Perfluorohexanesulfonic Acid (PFHxS)	0.171	0.183	93.9	70-130
Perfluorooctanoic Acid (PFOA)	0.227	0.200	113.6	70-130
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.823	0.760	108.2	70-130
Perfluoroheptanesulfonic Acid (PFHpS)	0.209	0.191	109.8	70-130
Perfluorononanoic Acid (PFNA)	0.225	0.200	112.6	70-130
Perfluorooctanesulfonic Acid (PFOS)	0.183	0.186	98.6	70-130
Perfluorodecanoic Acid (PFDA)	0.243	0.200	121.7	70-130
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	0.829	0.768	108	70-130
Perfluorononanesulfonic Acid (PFNS)	0.206	0.192	107.3	70-130
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.169	0.200	84.6	70-130
Perfluoroundecanoic Acid (PFUnA)	0.203	0.200	101.6	70-130
Perfluorodecanesulfonic Acid (PFDS)	0.200	0.193	103.6	70-130
Perfluorooctanesulfonamide (PFOSA)	0.211	0.200	105.4	70-130
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.189	0.200	94.7	70-130
Perfluorododecanoic Acid (PFDoA)	0.259	0.200	129.6	70-130
Perfluorotridecanoic Acid (PFTrDA)	0.222	0.200	111.1	70-130
Perfluorotetradecanoic Acid (PFTeDA)	0.216	0.200	108	70-130
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid (HFPO-DA)	0.825	0.800	103.1	70-130
4,8-Dioxo-3h-Perfluorononanoic Acid (ADONA)	0.760	0.756	100.5	70-130
Perfluorododecanesulfonic Acid (PFDoS)	0.190	0.194	98.2	70-130
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	0.836	0.748	112	70-130
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	0.844	0.756	112	70-130
N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	0.237	0.200	118.8	70-130
N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	0.206	0.200	102.8	70-130
N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	2.078	2.000	103.9	70-130
N-Ethyl Perfluorooctanesulfonamido Ethanol (NEtFOSE)	2.148	2.000	107.4	70-130
Perfluoro-3-Methoxypropanoic Acid (PFMPA)	0.386	0.400	96.5	70-130
Perfluoro-4-Methoxybutanoic Acid (PFMBA)	0.391	0.400	97.8	70-130
Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEA)	0.388	0.356	108.6	70-130
Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	0.531	0.400	132.6*	70-130
3-Perfluoropropyl Propanoic Acid (3:3FTCA)	0.972	1.000	97.2	70-130
2H,2H,3H,3H-Perfluorooctanoic Acid (5:3FTCA)	5.703	5.000	114.1	70-130
3-Perfluoroheptyl Propanoic Acid (7:3FTCA)	5.316	5.000	106.3	70-130
Perfluoro-n-[13C4]Butanoic Acid (13C4-PFBA)	9.924	10.000	99.2	70-130
Perfluoro-n-[13C5]Pentanoic Acid (13C5-PFPeA)	5.678	5.000	113.6	70-130
Perfluoro-1-[2,3,4-13C3]Butanesulfonic Acid (13C3-PFBS)	2.413	2.330	103.6	70-130

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : LCMS09
 Lab File ID : SCI09_241218_06
 Sample No : WG2010521-1
 Channel :

Lab Number : L2468567
 Project Number : 12123
 Calibration Date : 12/18/24 05:43
 Init. Calib. Date(s) : 11/12/24 11/12/24
 Init. Calib. Times : 13:47 14:58

Compound	Concentration (ng/ml)	True Value (ng/ml)	% Recovery	QC Limits
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Hexanesulfonic Acid (13C2-4:2FTS)	4.524	4.690	96.5	70-130
Perfluoro-n-[1,2,3,4,6-13C5]Hexanoic Acid (13C5-PFHxA)	2.316	2.500	92.6	70-130
Perfluoro-n-[1,2,3,4-13C4]Heptanoic Acid (13C4-PFHpA)	2.647	2.500	105.9	70-130
Perfluoro-1-[1,2,3-13C3]Hexanesulfonic Acid (13C3-PFHxS)	2.379	2.370	100.4	70-130
Perfluoro-n-[13C8]Octanoic Acid (13C8-PFOA)	2.501	2.500	100	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Octanesulfonic Acid (13C2-6:2FTS)	4.284	4.755	90	70-130
Perfluoro-n-[13C9]Nonanoic Acid (13C9-PFNA)	1.166	1.250	93.3	70-130
Perfluoro-1-[13C8]Octanesulfonic Acid (13C8-PFOS)	2.302	2.395	95.9	70-130
Perfluoro-n-[1,2,3,4,5,6-13C6]Decanoic Acid (13C6-PFDA)	1.264	1.250	101.2	70-130
1H,1H,2H,2H-Perfluoro-1-[1,2-13C2]Decanesulfonic Acid (13C2-8:2FTS)	3.672	4.800	76.5	70-130
N-Methyl-d3-perfluoro-1-octanesulfonamidoacetic Acid (D3-NMeFOSAA)	5.510	5.000	110.2	70-130
Perfluoro-n-[1,2,3,4,5,6,7-13C7]Undecanoic Acid (13C7-PFUnA)	1.363	1.250	109	70-130
Perfluoro-1-[13C8]Octanesulfonamide (13C8-PFOSA)	2.539	2.500	101.5	70-130
N-Ethyl-d5-perfluoro-1-octanesulfonamidoacetic Acid (D5-NEtFOSAA)	4.794	5.000	95.9	70-130
Perfluoro-n-[1,2-13C2]Dodecanoic Acid (13C2-PFDoA)	1.215	1.250	97.2	70-130
Perfluoro-n-[1,2-13C2]Tetradecanoic Acid (13C2-PFTeDA)	1.258	1.250	100.6	70-130
Tetrafluoro-2-heptafluoropropoxy-[13C3]-propanoic acid (13C3-HFPO-DA)	9.878	10.000	98.8	70-130
N-Methyl-d3-Perfluoro-1-Octanesulfonamide (D3-NMeFOSA)	1.805	2.500	72.2	70-130
N-Ethyl-d5-Perfluoro-1-Octanesulfonamide (D5-NEtFOSA)	1.881	2.500	75.2	70-130
N-Methyl-d7-Perfluorooctanesulfonamidoethanol (D7-NMeFOSE)	17.546	25.000	70.2	70-130
N-Ethyl-d9-Perfluorooctanesulfonamidoethanol (D9-NEtFOSE)	16.019	25.000	64.1*	70-130
Perfluoro-[1,2-13C2]octanoic Acid (13C2-PFOA)	2.241	2.500	89.6	70-130
Perfluoro-n-[1,2-13C2]Hexanoic Acid (13C2-PFHxA)	2.898	2.500	115.9	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanoic Acid (13C4-PFOA)	2.564	2.500	102.6	70-130
Perfluoro-n-[1,2,3,4-13C4]Octanesulfonic Acid (13C4-PFOS)	2.382	2.395	99.2	70-130
Perfluoro-n-[1,2-13C2]Decanoic Acid (13C2-PFDA)	1.168	1.250	93.4	70-130
Perfluoro-n-[2,3,4-13C3]Butanoic Acid (13C3-PFBA)	6.808	5.000	136.2*	70-130
Perfluoro-n-[1,2,3,4,5-13C5]Nonanoic Acid (13C5-PFNA)	1.304	1.250	104.3	70-130
Perfluoro-1-hexane[18O2]Sulfonic Acid (18O2-PFHxS)	2.629	2.370	110.9	70-130
1H,1H,2H,2H-Perfluoro[1,2-13C2D4]Hexanesulfonic Acid (13C2D4-4:2FTS)	4.669	5.000	93.4	70-130

* Value outside of QC limits.



Metals Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of TAL Metals Data
for Alpha Analytical Labs
SDG Number: L2468567**

**11 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: The samples were analyzed within USEPA SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for target metals were within control limits (90-110% for all metals except Hg, 80-120% for Hg).

Blanks: The analyses of initial and continuing calibration, method, field, and equipment blanks reported target metals as either not detected or below the reporting limits, as required.

ICP Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%).

Spike Sample Recovery: The percent recoveries (%Rs) for applicable metals were within control limits (75-125%) for aqueous dissolved spike sample MW9-B.

One of two %Rs for calcium was above control limits for aqueous total sample MW-9B. Positive results for calcium should be considered estimated, biased high (J+) in associated aqueous total samples.

Laboratory Duplicates: The relative percent differences for applicable metals were below the allowable maximum (20%) for aqueous total and dissolved duplicate sample MW-9B, as required.

Field Duplicates: The relative percent differences (RPDs) for applicable metals were below the allowable maximum (20%) for aqueous dissolved field duplicate pair MW-6A/DUP (attached table), as required.

The RPDs for aluminum and chromium was above the allowable maximum (20%) for aqueous total field duplicate pair MW-6A/DUP (attached table). Positive total results for aluminum and chromium should be considered estimated (J) in samples MW-6A and DUP.

Laboratory Control Sample: The percent recoveries for target metals were within control limits (80-120%) for aqueous total samples WG2002934-2, WG2003285-2, WG2002938-2, and WG2003286-2, and aqueous dissolved samples WG2003197-2 and WG2003198-2.

Serial Dilution: The %Ds for applicable metals were below the allowable maximum (10%) for aqueous total dissolved and total serial dilution sample MW-9B, as required.

Total vs Dissolved: The dissolved result for aluminum was greater than the total result plus 10% for sample MW-8A. The dissolved result for chromium was greater than the total results plus 10% for sample MW-9B. Positive results for total and dissolved metals should be considered estimated (J) in the samples.

Form 5a Matrix Spike

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : **MW-9B**
Lab Sample ID : L2468567-11
Matrix Spike : WG2003285-3
Matrix Spike Dup : WG2003285-4

Lab Number : L2468567
Project Number : 12123
Matrix : WATER
MS Analysis Date : 12/05/24 12:41
MSD Analysis Date : 12/05/24 12:45

Parameter	Sample Conc. (mg/l)	Matrix Spike Sample			Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit
		Spike Added (mg/l)	Spike Conc. (mg/l)	%R	Spike Added (mg/l)	Spike Conc. (mg/l)	%R			
Aluminum, Total	0.00724J	2	2.01	100	2	1.89	94	6	75-125	20
Antimony, Total	0.00042J	0.5	0.4804	96	0.5	0.4868	97	1	75-125	20
Arsenic, Total	ND	0.12	0.1197	100	0.12	0.1196	100	0	75-125	20
Barium, Total	0.05043	2	2.129	104	2	2.108	103	1	75-125	20
Beryllium, Total	ND	0.05	0.05211	104	0.05	0.05151	103	1	75-125	20
Cadmium, Total	ND	0.053	0.05241	99	0.053	0.05178	98	1	75-125	20
Calcium, Total	16.4	10	27.8	114	10	29.3	129 Q	5	75-125	20
Chromium, Total	0.00132	0.2	0.2229	111	0.2	0.2239	111	0	75-125	20
Cobalt, Total	ND	0.5	0.5186	104	0.5	0.5187	104	0	75-125	20
Copper, Total	ND	0.25	0.2592	104	0.25	0.2537	101	2	75-125	20
Iron, Total	ND	1	1.11	111	1	1.12	112	1	75-125	20
Lead, Total	ND	0.53	0.5421	102	0.53	0.5192	98	4	75-125	20
Magnesium, Total	2.46	10	12.9	104	10	12.9	104	0	75-125	20
Manganese, Total	0.00153	0.5	0.5386	107	0.5	0.5272	105	2	75-125	20
Nickel, Total	ND	0.5	0.5149	103	0.5	0.5189	104	1	75-125	20
Potassium, Total	2.32	10	12.9	106	10	13.1	108	2	75-125	20
Selenium, Total	ND	0.12	0.132	110	0.12	0.130	108	2	75-125	20
Silver, Total	ND	0.05	0.05421	108	0.05	0.05417	108	0	75-125	20
Sodium, Total	7.44	10	18.2	108	10	18.5	111	2	75-125	20
Thallium, Total	ND	0.12	0.1292	108	0.12	0.1281	107	1	75-125	20
Vanadium, Total	ND	0.5	0.5387	108	0.5	0.5575	112	3	75-125	20
Zinc, Total	ND	0.5	0.5173	103	0.5	0.5174	103	0	75-125	20



General Chemistry

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Alkalinity Data for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported total alkalinity as not detected.

Laboratory Duplicates: The relative percent differences for bicarbonate and carbonate alkalinity were below the allowable maximum (20%) for aqueous batch duplicate sample WG2003034-2, as required.

Field Duplicates: The relative percent difference for bicarbonate alkalinity was below the allowable maximum (20%) for aqueous field duplicate pair MW-6A/DUP (attached table), as required.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Iodide Data for
Alpha Analytical Labs, SDG Number: L2468657**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported iodide as not detected.

Spike Sample Recovery: The percent recoveries for iodide were within acceptance limits (75-125%) for aqueous MS/MSD sample MW-8C2.

Laboratory Duplicates: The relative percent difference for iodide was below the allowable maximum (20%) for aqueous MS/MSD sample MW-8C2, as required.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported iodide as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Laboratory Control Sample: The percent recovery for iodide were within laboratory QC limits (80-120%) for aqueous sample 3763263.



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**QA/QC Review of Ion Chromatography Data* for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analysis of the method blank reported target analytes as either not detected or below the RLs.

Spike Sample Recovery: The percent recoveries (%Rs) for target analytes were within acceptable limits (75-125%) for the aqueous spike samples MW-3A and MW-8C2.

The %R for bromide as below acceptable limits (75-125%) for aqueous spike sample MW-6A. Positive results for bromide should be considered estimated, biased low (J-) and “not detected” results estimated (UJ) in associated aqueous samples.

Laboratory Duplicates: The relative percent differences (RPDs) for applicable analytes were below the allowable maximum (20%) for aqueous duplicate samples MW-3A and MW-8C2 as required.

The RPD for bromide was above the allowable maximum (20%) for aqueous duplicate sample MW-6A. Positive results for bromide should be considered estimated (J) in associated aqueous samples.

Field Duplicates: The relative percent difference for bromide was above the allowable maximum (20%) for aqueous field duplicate pair MW-6A/DUP (attached table). Positive results for bromide should be considered estimated (J) in samples MW-6A and DUP.

Laboratory Control Sample: The percent recoveries for target analytes were within laboratory QC limits (90-110%) for aqueous samples WG2002856-2, WG2002857-2, WG2003347-2, and WG2003348-2.

* ion chromatography includes bromide, chloride, fluoride, and sulfate.

Form 5a Matrix Spike

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-6A**
 Lab Sample ID : L2468567-02
 Matrix Spike : WG2003348-3
 Matrix Spike Dup :

Lab Number : L2468567
 Project Number : 12123
 Matrix : WATER
 MS Analysis Date : 11/27/24 12:50
 MSD Analysis Date :

Parameter	Sample Conc. (mg/l)	Matrix Spike Sample		%R	Matrix Spike Duplicate		%R	RPD	Recovery Limits	RPD Limit
		Spike Added (mg/l)	Spike Conc. (mg/l)		Spike Added (mg/l)	Spike Conc. (mg/l)				
Bromide	0.283	0.4	0.580	74 Q					90-110	20



Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : MW-6A
Lab Sample ID : L2468567-02
Dup Sample ID : WG2003348-4

Lab Number : L2468567
Project Number : 12123
Matrix : WATER
Analysis Date : 11/27/24 13:12
DUP Analysis Date : 11/27/24 13:01

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Bromide	0.283	0.193	38.0	20



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**QA/QC Review of Ammonia Data for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported ammonia as either below the reporting limit or not detected, as required.

Spike Sample Recovery: The percent recoveries for ammonia were within acceptable limits (75-125%) for aqueous spike samples MW-8C2 and MW-3A.

Laboratory Duplicates: The relative percent difference for ammonia was above the allowable maximum (20%) for aqueous duplicate sample MW-8C2. Positive results for ammonia should be considered estimated (J) in associated aqueous samples.

Field Duplicates: The relative percent difference for ammonia was above the allowable maximum (20%) for aqueous field duplicate pair MW-6A/DUP (attached table). Positive results for ammonia should be considered estimated (J) in samples MW-6A and DUP.

Laboratory Control Sample: The percent recoveries for ammonia were within laboratory QC limits (90-110%) for aqueous samples WG2003842-2, WG2004293-2, and WG2004672-2.

Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : MW-8C2
Lab Sample ID : L2468567-10
Dup Sample ID : WG2004293-3

Lab Number : L2468567
Project Number : 12123
Matrix : WATER
Analysis Date : 12/03/24 12:14
DUP Analysis Date : 12/03/24 12:16

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Ammonia	0.154	0.285	60 Q	20



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**QA/QC Review of Nitrate/Nitrite Data for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported nitrate/nitrite as not detected.

Spike Sample Recovery: The percent recovery for nitrate/nitrite was within acceptable limits (75-125%) for aqueous spike sample MW-3A.

Laboratory Duplicates: The relative percent difference for nitrate/nitrite was below the allowable maximum (20%) for aqueous duplicate sample MW-3A, as required.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported nitrate/nitrite as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Laboratory Control Sample: The percent recovery for nitrate/nitrite was within laboratory QC limits (90-110%) for aqueous sample WG2003452-2.



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**QA/QC Review of Phosphate Data for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported phosphate as not detected.

Spike Sample Recovery: The percent recovery for phosphate was within acceptable limits (75-125%) for aqueous spike sample MW-9B.

Laboratory Duplicates: The analysis of aqueous duplicate sample MW-9B was acceptable.

Field Duplicates: The relative percent difference for phosphate was below the allowable maximum (20%) for aqueous field duplicate pair MW-6A/DUP (attached table), as required.

Laboratory Control Sample: The percent recovery for phosphate within laboratory QC limits (84-118%) for aqueous sample WG2003759-2.



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**QA/QC Review of Sulfide Data for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: The samples were analyzed beyond USEPA SW 846 holding times. The “not detected” results for these samples should be considered estimated (UJ).

Blanks: The analysis of the method blank reported sulfide as not detected.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported sulfide as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Laboratory Control Sample: The relative percent difference for sulfide was above the allowable maximum (20%) and the percent recoveries were within laboratory QC limits (79.7-122%) for aqueous samples B393206-BS1/BSD1 and B393683-BS1/BSD1.

Method Reporting Limit Check Sample: The percent recoveries for sulfide were within laboratory QC limits (50-200%) for aqueous samples B393683-MRL1 and B393683-2.



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**QA/QC Review of Total Kjeldahl Nitrogen Data (TKN) for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analysis of the method blank reported TKN as either not detected or below the RL.

Spike Sample Recovery: The percent recoveries for TKN were within acceptable limits (75-125%) for aqueous batch spike samples L2469566-02 and L2469919-02.

Laboratory Duplicates: The relative percent difference for TKN was above the allowable maximum (20%) for aqueous batch duplicate sample WG2004400-3. Positive results for TKN should be considered estimated (J) in associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported TKN as below the lowest standard; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Laboratory Control Sample: The percent recoveries for TKN were within laboratory QC limits (78-122%) for aqueous samples WG2003832-2 and WG2004400-2.

Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : NA
Lab Sample ID : NA
Dup Sample ID : **WG2004400-3**

Lab Number : L2468567
Project Number : 12123
Matrix : WATER
Analysis Date : 12/03/24 18:17
DUP Analysis Date : 12/03/24 18:19

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.367	0.518	34 Q	24



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**QA/QC Review of Uranium Data
for Alpha Analytical Labs
SDG Number: L2468567**

**4 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: The samples were analyzed within USEPA SW-846 holding times.

Blanks: The analyses of method, equipment, and field blanks reported uranium not detected.

Spike Sample Recovery: The percent recoveries for uranium were within QC limits (70-130%) for aqueous batch MS/MSD sample MW-9B.

Laboratory Duplicates: The relative percent difference for uranium was below the allowable maximum (20%) for aqueous MS/MSD sample MW-9B, as required.

Field Duplicates: The analyses of aqueous field duplicate pair MW-6A/DUP reported uranium as not detected; therefore, a valid relative percent difference could not be calculated. The analyses for the field duplicate pair were acceptable.

Laboratory Control Sample: The percent recovery for uranium was within QC limits (85-115%) for aqueous samples R4153788-2.

TDS Data Section



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**QA/QC Review of Total Dissolved Solids Data (TDS) for
Alpha Analytical Labs, SDG Number: L2468567**

**11 Ground Water Samples and 1 Field Duplicate
Collected November 19-20, 2024**

Prepared by: Donald Anné
January 21, 2025

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported TDS as either not detected or below the RL, as required.

Laboratory Duplicates: The relative percent differences for TDS were below the allowable maximum (20%) for aqueous batch duplicate samples WG2001373-3, WG2001373-4, WG2001988-3, and WG2001988-4.

Field Duplicates: The relative percent difference for TDS was below the allowable maximum (20%) for aqueous field duplicate pair MW-6A/DUP (attached table), as required.

Laboratory Control Sample: The percent recoveries for TDS were within QC limits (80-120%) for aqueous samples WG2001373-2 and WG2001988-2.

Field Duplicate Calculation Section

Semi-Volatiles

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2468567

S1= MW-6A

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
Phenol	0.45	ND	NC
Di-n-butylphthalate	ND	2.6	NC
Naphthalene (SIM)	ND	0.04	NC

* RPD is above the allowable maximum 20%.

Results are in units of ug/L.

Bold numbers were values that are below the CRQL or above the high standard.

ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

EPA Method 1633 PFC

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2468567

S1= MW-6A

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
Perfluorobutanoic Acid (PFBA)	3.22	3.18	NC
Perfluoropentanoic Acid (PFPeA)	1.48	1.64	NC
Perfluorobutanesulfonic Acid (PFBS)	0.777	0.889	NC
Perfluorohexanoic Acid (PFHxA)	1.24	1.24	NC
Perfluoroheptanoic Acid (PFHpA)	0.738	0.937	NC
Perfluorohexanesulfonic Acid (PFHxS)	0.677	0.752	NC
Perfluorooctanoic Acid (PFOA)	4.12	3.96	4%
Perfluorononanoic Acid (PFNA)	0.692	0.808	NC
Perfluorooctanesulfonic Acid (PFOS)	2.02	2.31	13%
Perfluorodecanoic Acid (PFDA)	0.415	0.436	NC
Perfluoroundecanoic Acid (PFUnA)	0.231	ND	NC

* RPD is above the allowable maximum (20%)

All results are in ng/L.

Bold numbers were values that below the CRQL or above the high standard.

ND - Not detected.

NC - Not calculated, both results must be within the linear range for valid RPDs to be calculated.

General Chemistries

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2468567

S1= MW-6A

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>	
Total Nitrogen	ND	ND	NC	
Nitrogen, Total Kjeldahl	0.184	0.19	NC	
Nitrogen, Ammonia	0.202	0.14	36%	*
Nitrogen, Nitrate/Nitrite	ND	ND	NC	
Solids, Total Dissolved	140	150	7%	
Sulfide	ND	ND	NC	
Alkalinity, Carbonate	ND	ND	NC	
Alkalinity, Bicarbonate	67.4	67.8	1%	
Phosphate, Total	0.107	0.107	0%	
Bromide	0.283	0.176	47%	*
Chloride	22	22	0%	
Fluoride	0.062	0.065	5%	
Sulfate	14.1	14.1	0%	
Iodide	ND	ND	NC	
Uranium	ND	ND	NC	

* RPD is above the allowable maximum 20%.

Results are in units of mg/L with the exception of alkalinity which is reported in mg CaCO₃/L and

Bold numbers were values that are below the RL.

ND - Not detected.

NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

Radio Chemistries

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2468567

S1= MW-6A

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>	
Radium-226	152.18	0	2	
Radium-228	-214	-1175.7	138%	*
Thorium-228	2511.2	0	200%	*
Thorium-230	-0.191	0.329	754%	*
Thorium-232	0.71	1.33	61%	*

* RPD is above the allowable maximum 20%.

Results are in units of pCi/L.

Bold numbers were values that are below the RL.

ND - Not detected.

NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

TAL Metals-Total

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2468567

S1= MW-6A

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>	
aluminum	0.011	0.015	31%	*
antimony	ND	ND	NC	
arsenic	ND	ND	NC	
barium	0.01908	0.02124	11%	
beryllium	ND	ND	NC	
cadmium	ND	ND	NC	
calcium	22.7	23	1%	
chromium	0.00135	0.00214	45%	*
cobalt	0.00058	0.00061	5%	
copper	0.00039	0.00049	NC	
iron	0.0437	0.0514	NC	
lead	ND	ND	NC	
magnesium	4.97	5.32	7%	
manganese	3.541	3.776	6%	
mercury	ND	ND	NC	
nickel	0.00098	0.00121	NC	
potassium	3.22	3.33	3%	
selenium	ND	ND	NC	
silver	ND	ND	NC	
sodium	12.5	13.1	5%	
thallium	ND	ND	NC	
vanadium	ND	ND	NC	
zinc	ND	ND	NC	

* RPD is above the allowable maximum 20%.

All results are in units of mg/L.

Bold numbers were values that are below the CRDL.

ND - Not detected.

NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.

TAL Metals-Dissolved

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2468567

S1= MW-6A

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
aluminum (dissolved)	ND	ND	NC
antimony (dissolved)	ND	0.00225	NC
arsenic (dissolved)	ND	ND	NC
barium (dissolved)	0.01968	0.02027	3%
beryllium (dissolved)	ND	ND	NC
cadmium (dissolved)	ND	ND	NC
calcium (dissolved)	21.8	22	1%
chromium (dissolved)	0.00035	0.0004	NC
cobalt (dissolved)	0.00054	0.00062	14%
copper (dissolved)	0.00041	ND	NC
iron (dissolved)	ND	0.0202	NC
lead (dissolved)	ND	ND	NC
magnesium (dissolved)	4.77	4.86	2%
manganese (dissolved)	3.526	3.63	3%
mercury (dissolved)	ND	ND	NC
nickel (dissolved)	ND	ND	NC
potassium (dissolved)	3.04	3.03	0%
selenium (dissolved)	ND	ND	NC
silver (dissolved)	ND	ND	NC
sodium (dissolved)	12.1	12.4	2%
thallium (dissolved)	ND	ND	NC
vanadium (dissolved)	ND	ND	NC
zinc (dissolved)	ND	ND	NC

* RPD is above the allowable maximum 20%.

All results are in units of mg/L.

Bold numbers were values that are below the CRDL.

ND - Not detected.

NC - Not calculated, both results must be above the CRDL for valid RPDs to be calculated.