

November 14, 2024

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

Re: Third 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 Third 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 August 2024 event was also the fourth quarterly round that Sparrow 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 August 20 and 21, 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

No mining activities were observed during the August 2024 sampling event (Figure 2). The dredge was parked on the western shore of the lake and was under repair. 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 August 20, 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 August 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. The lake elevation (29.7 ft msl) is estimated based on the site topographic map. The water table is drawn down slightly 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 Figure 3 reflects 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 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. 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 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, pesticides by Method 8081, polychlorinated biphenyls (PCBs) by Method 8082, herbicides by Method 8151, total and dissolved target analyte list (TAL) metals, 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-6A and MW-6B 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-6B), a field duplicate (MW-9B), 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, PCBs, Pesticides, herbicides, and metals results from the 3rd 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 emergent contaminant results, respectively.

No VOCs, PCBs, pesticides, or herbicides were detected in any of the ground water samples (Table 2). Trace levels of several SVOCs were reported above the detection limit, but below the quantitation limit and are flagged “J” for estimated. Only benzo(B)fluoranthene, benzo(K)fluoranthene, chrysene, and indeno(1,2,3-C,D) pyrene at MW-3A and MW-8B were reported at concentrations that exceeded their respective New York State Class GA Water Quality Standards (NYSGWQS) of 0.002 micrograms per liter (µg/L). The laboratory reported these SVOCs at lower quantitation limits during previous sample events (0.1 to 5 µg/L in June and March 2024 compared to 5 to 10 µg/L in previous events). Thus, the reported concentrations in August 2024 are consistent with previous results.

No metals except manganese at MW-6AR was reported at concentrations exceeding the respective NYSGWQS (Table 2). Total manganese was detected at 4,600 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 similar concentrations. The results are consistent with previous sampling rounds.

The August 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.

The emergent contaminants included 1,4-dioxane and per- and polyfluorinated alkyl substances (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 (5.15 nanograms per Liter [ng/L] at MW-6BR) and PFOS (3.74 ng/L at MW-6AR) were reported at downgradient wells. PFOA was also detected in upgradient well MW-9B at a concentration of 3.22 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 November 2024. 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 August 2024
- Figure 3 – Ground Water Elevations – August 20, 2024
- Appendix A – Field Sampling Forms
- Appendix B – Laboratory Summary Reports

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

Well	Measuring Point Elevation (ft msl)	Depth to Water (feet) 8/20/2024	Ground Water Elevations (feet msl) 8/20/2024	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	40.64	30.74	8/21/2024	12.2	82	5.83	232	11.4	0
Well 3C	70.79	40.04	30.75	--	--	--	--	--	--	--
Well 5C	101.27	71.39	29.88	--	--	--	--	--	--	--
Well 6AR	81.13	53.66	27.47	8/20/2024	14.0	258	5.59	151	5.6	0
Well 6BR	81.03	52.89	28.14	8/20/2024	10.4	364	6.00	155	0.0	0
Well 6CR	81.21	53.36	27.85	8/20/2024	9.9	537	5.96	126	0.0	0
Well 7A	52.00	22.2	29.80	8/20/2024	14.1	176	6.09	230	4.3	0
Well 7B	51.96	22.39	29.57	8/21/2024	13.3	243	6.39	135	0.0	0
Well 7C	52.28	22.71	29.57	8/21/2024	12.7	224	6.34	177	0.0	0
Well 8A	92.80	64.53	28.27	8/21/2024	17.0	299	6.40	139	6.0	0
Well 8B	93.46	65.06	28.40	8/21/2024	14.4	283	7.24	104	2.3	0
Well 8C2	83.54	65.24	18.30	8/21/2024	13.8	334	7.06	112	0.1	0
Well 9B	60.96	30.54	30.42	8/21/2024	11.5	171	5.57	262	2.8	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

Sparrow Mining of Suffolk, LLC, Manorville, New York

Pesticides																		
Aldrin	NS	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Alpha Bhc (Alpha Hexachlorocyclohexane)	0.01	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Beta Bhc (Beta Hexachlorocyclohexane)	0.04	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Delta BHC (Delta Hexachlorocyclohexane)	0.04	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Gamma Bhc (Lindane)	0.05	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Alpha Endosulfan	NS	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Beta Endosulfan	NS	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
Endosulfan Sulfate	NS	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
cis-Chlordane	0.05	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Dieldrin	0.004	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
Endrin	ND	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
Endrin Aldehyde	5	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
Endrin Ketone	5	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
Heptachlor	0.04	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Heptachlor Epoxide	0.03	ug/l	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	0.014U	--	--
Methoxychlor	35	ug/l	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	--	--
P,P'-DDD	0.3	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
P,P'-DDE	0.2	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
P,P'-DDT	0.2	ug/l	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	0.029U	--	--
Toxaphene	0.06	ug/l	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	0.143U	--	--
Herbicides																		
2,4-D (Dichlorophenoxyacetic Acid)	50	ug/l	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	12.5U	--	--	
Acetic acid, (2,4,5-trichlorophenoxy)-	35	ug/l	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2.5U	--	--	
Silvex (2,4,5-TP)	0.26	ug/l	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2U	2.5U	--	--	
Total Metals																		
Aluminum	NS	ug/L	17.6	23.8	12.9	17.3	4.37J	23.9	3.62J	23.4	6.78J	19.2	11.4	8.22J	10U	10U	--	
Antimony	3	ug/L	4U	4U	0.57J	4U	4U	4U	4U	4U	4U	4U	4U	4U	4U	4U	--	
Arsenic	25	ug/L	0.5U	0.5U	0.5U	0.17J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	--	
Barium	1000	ug/L	19.97	20.39	44.84	43.05	17.87	19.66	23.16	31.21	26.95	28.52	47.52	46.62	0.5U	0.5U	--	
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	0.5U	0.5U	--	
Cadmium	5	ug/L	0.2U	0.07J	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	4970	24200	43300	75500	16400	23800	18300	35100	33000	39500	17600	16600	100U	100U	--	
Chromium, Total	50	ug/L	0.58J	3.74	0.43J	0.99J	0.6J	0.44J	0.71J	6.4	0.22J	0.53J	1.4	0.96J	0.2J	0.28J	--	
Cobalt	NS	ug/L	0.5U	0.76	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	--	
Copper	200	ug/L	1U	1.75	0.56J	0.66J	1U	0.59J	1U	0.48J	0.47J	1U	1U	1U	1U	1U	--	
Iron	300	ug/L	50U	99.7	22.8J	30.1J	50U	23.2J	50U	57.9	50U	26.5J	50U	50U	50U	50U	--	
Manganese	300	ug/L	14.58	4600	90.71	5.48J	31.19	7.97	0.62J	4.98	1.14	2.08	2.60J	2.58	1U	1U	--	
Iron + Manganese	500	ug/L	14.58	4700	114	35.6	31.2	31	0.62	62.9	1.1	28.6	2.60	2.6	ND	ND	--	
Lead	25	ug/L	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	--	
Magnesium	35000	ug/L	1420	5180	10200	16600	5790	6660	8290	11400	6290	8240	2650	2570	70U	70U	--	
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	--	
Nickel	100	ug/L	2U	6.46	2U	2U	0.86J	2U	4.19	2U	1.9J	2U	2U	2U	2U	2U	--	
Potassium	NS	ug/L	1880	3130	4230	5210	1730	2330	2100	2100	3040	3640	2500	2340	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	6360J	12300J	12500	13700	9550	13400	12200J	6650	10500	12600	7370	7410	100U	100U	--	
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	--	
Dissolved Metals																		
Aluminum	NS	ug/L	14.5	10U	3.42J	10U	3.65J	10U	10U	10U	10U	10U	7.16J	14.4	3.33J	--	--	
Antimony	3	ug/L	4U	4U	0.73J	4U	4U	4U	4U	4U	4U	4U	4U	4U	4U	--	--	
Arsenic	25	ug/L	0.5U	0.5U	0.5U	0.5U	0.5U	0.19J	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	--	--	
Barium	1000	ug/L	18.08	19.41	43.29	41.25	16.62	18.55	22.28	29.06	25.66	29.4	46.81	46.15	0.5U	--	--	
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	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	0.2U	--	--	
Calcium	NS	ug/L	4300	22900	42000	67900	16900	20900	17900	32100	31600	39600	17400	16300	59.9J	--	--	
Chromium	50	ug/L	0.47J	0.3J	0.22J	0.24J	0.69J	1U	0.73J	1.05	0.22J	0.19J	1.1J	1.41J	1U	--	--	
Cobalt	NS	ug/L	0.5U	0.52	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	0.5U	--	--	
Copper	200	ug/L	1U	1U	0.52J	0.53J	1U	1U	1U	1U	1U	1U	1U	1U	1U	--	--	
Iron	300	ug/L	50U	50U	50U	50U	50U	50U	50U	23.8J	50U	50U	50U	50U	50U	--	--	
Manganese	300	ug/L	13.84	4660	88.84	9.15J	29.11	6.54	0.61J	1.00	1.16	0.85J	2.91J	2.95	1U	--	--	
Iron + Manganese	500	ug/L	13.84	4660	88.84	9.15	29.11	6.54	0.61	24.8	1.16	0.85	2.91	2.95	ND	--	--	
Lead	25	ug/L	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	1U	--	--	
Magnesium	35000	ug/L	1370	5240	9940	15900	5980	6570	8700	10700	5920	8140	2680	2510	70U	--	--	
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	--	--	
Nickel	100	ug/L	2U	2U	2U	2U	0.56J	2U	2U	2.14	2U	2U	2U	2U	2U	--	--	
Potassium	NS	ug/L	1680	3040	4080	4790	1810	2150	1930	1920	2930	3690	2400	2340	100U	--	--	
Selenium	10	ug/L	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	--	--	
Sodium	20000	ug/L	6580	13900J	12900	13900	10200	14200	13900J	6530	11200	13600	8190	7650	250	--	--	
Thallium	0.5	ug/L	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	--	--	
Zinc	2000	ug/L	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	10U	--	--	

- 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.
- Bold values indicate analyte was detected.
- Shaded cells indicate the value exceeds the NYS Water Quality Standard.

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

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6BR	Well 6CR	Well 7A	Well 7B	Well 7C	Well 8A	Well 8B	Well 8C2	Well 9B	Well 9B (Duplicate)
			8/21/2024	8/20/2024	8/20/2024	8/20/2024	8/20/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024	8/21/2024
Alkalinity, Total (As CaCO3)	NS	mg/l	19.1	69.9	113	217	47.2	63.8	43.7	80.0	66.8	98.1	12.1	11.3
Bromide	2	mg/l	0.05U	0.05U	0.057	0.101	0.043J	0.05U	0.05U	0.05U	0.05U	0.05U	0.072	0.072
Chloride (As Cl)	250	mg/l	10.7	22.4	21.9	21.0	13.1	22.5	22.2	15.2	22.0	22.1	12.3	12.2
Fluoride	1.5	mg/l	0.042J	0.067	0.069	0.090	0.056	0.065	0.047J	0.063	0.122	0.083	0.05U	0.05U
Iodide	NS	mg/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
Nitrogen, Ammonia (As N)	2	mg/l	0.025J	0.30J	0.492J	0.913J	0.059J	0.063J	0.075U	0.025J	0.232J	0.132J	0.217J	0.048J
Nitrogen, Kjeldahl, Total	NS	mg/l	0.343J	0.378J	0.549J	0.961J	0.153J	0.118J	0.081J	0.3U	0.171J	0.447J	0.076J	0.3U
Nitrogen, Nitrate-Nitrite	10	mg/l	0.077J	0.1U	0.1U	0.1U	0.63	0.1U	0.84	2.6	1.8	0.16	5.1	5.1
Total Nitrogen, All Forms (As N)	10	mg/l	0.34	0.38	0.55	0.96	0.63	0.3U	0.84	2.6	1.8	0.61	5.1	5.1
Phosphorus	NS	mg/l	0.015J	0.083	0.028J	0.058	0.043	0.083	0.034	0.022J	0.040	0.058	0.015J	0.031U
Sulfate (As SO4)	250	mg/l	5.37	14.7	23.2	14.6	15.5	16.6	23.2	29.4	23.9	24.3	19.6	19.6
Sulfide	0.05	mg/l	2U	2UJ	2UJ	2UJ	2UJ	2U	2U	2U	2U	2U	2UJ	2UJ
Total Dissolved Solids	NS	mg/l	50.0	130	180	260	150	140	110	180	140	160	74.0	81.0

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 reportig limit (RL).
- Bold values indicate analyte was detected.
- Shaded cells indicate the value exceeds the NYS Water Quality Standard.

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

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6BR	Well 9B	Well 9B (Duplicate)	Field Blank
			8/21/2024	8/20/2024	8/20/2024	8/21/2024	8/21/2024	8/21/2024
Radium-226	3	pci/l	-0.113 ± 0.685	0.318 ± 0.530	0.303 ± 0.583	0.0559 ± 0.425	0.168 ± 0.478	-0.111 ± 0.460
Radium-228	3	pci/l	0.171 ± 0.303	0.854 ± 0.380	0.748 ± 0.399	1.38 ± 0.483	0.502 ± 0.362	0.135 ± 0.350
Thorium-228	NS	pci/l	0.018 ± 0.118	0.033 ± 0.135	0.065 ± 0.113	0.065 ± 0.129	0.003 ± 0.117	0.075 ± 0.134
Thorium-230	NS	pci/l	0.000 ± 0.107	-0.007 ± 0.105	0.015 ± 0.109	0.060 ± 0.109	-0.008 ± 0.114	0.032 ± 0.114
Thorium-232	NS	pci/l	-0.014 ± 0.107	0.057 ± 0.106	0.000 ± 0.109	0.091 ± 0.109	0.009 ± 0.114	0.000 ± 0.114
Uranium-238	20	ug/l	1U	1U	0.382J	1U	1U	1U

Notes:

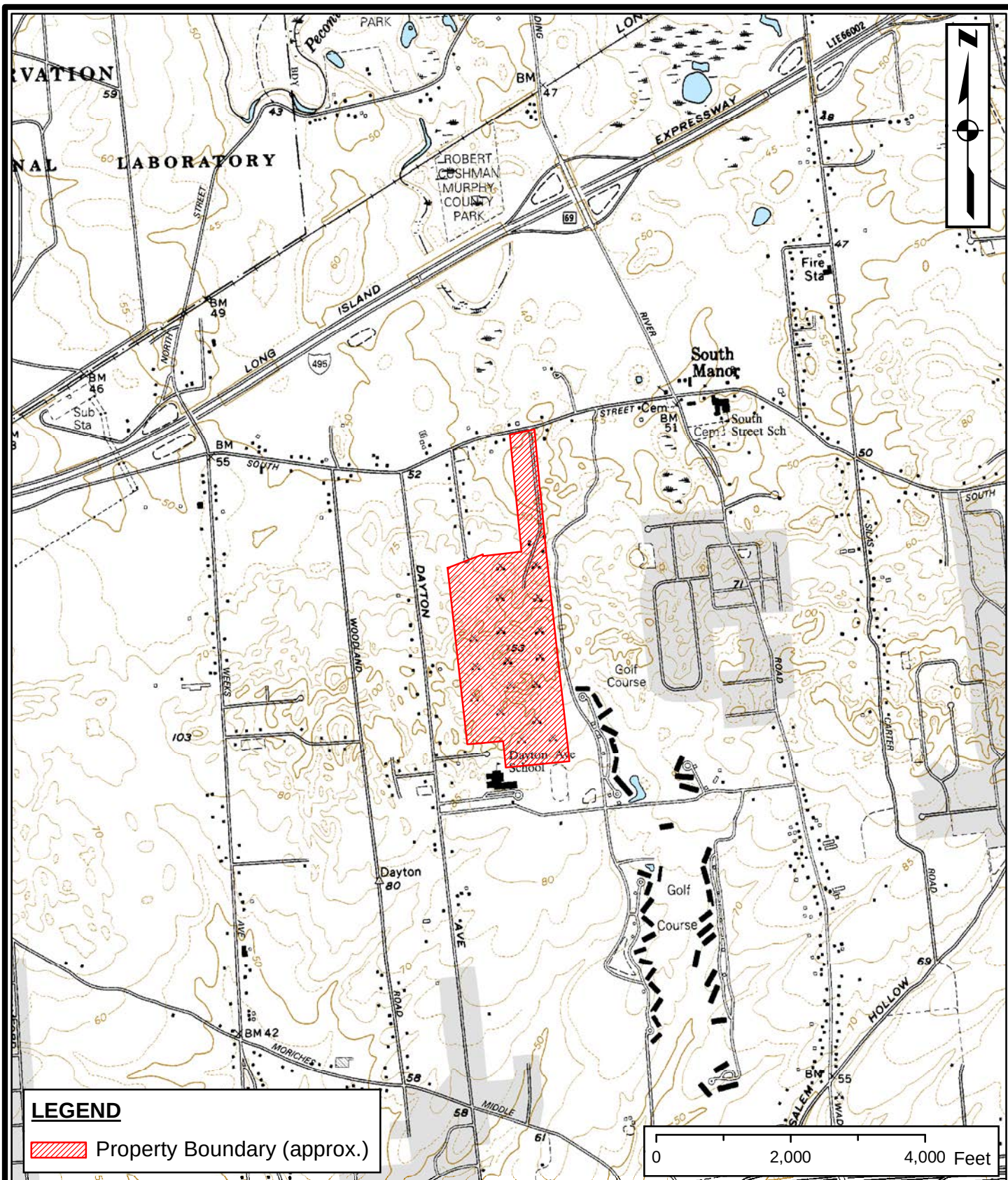
- Concentration for uranium is reported in micrograms per liter (µg/L), which is approximately equivalent to parts per billion (ppb). Concentrations for radium and thorium isotopes are reported in picocuries per liter (pci/L), which is a measure of the rate of radioactive decay.
- NYS Water Quality Standards and Guidance Values, Class GA, TOGS 1.1.1. The standard for Radium 226/228 is 3 pci/L, individually, or 5 pci/L combined.
- "NS" indicates no ground water standard has been established.
- "U" indicates not detected at the indicated quantitation reportig limit (RL).

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

Analyte	NYSDEC Water Quality (Class GA) Standard	Units	Well 3A	Well 6AR	Well 6BR	Well 9B	Well 9B (Duplicate)	Field Blank
			8/21/2024	8/20/2024	8/20/2024	8/21/2024	8/21/2024	8/21/2024
1,4-Dioxane								
1,4-Dioxane	0.35	ug/L	0.144U	0.150U	0.136U	0.153U	0.150U	0.136U
Per- and Plyfluoroalkyl Substances (PFAS)								
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11CI-PF3OUdS)	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
1H,1H, 2H, 2H-Perfluorodecane sulfonic acid	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
1H,1H, 2H, 2H-Perfluorooctane sulfonic acid	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2Fts)	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
2H,2H,3H,3H-Perfluorooctanoic acid (5:3FTCA)	NS	ng/l	37.9U	38U	37.3U	38.8U	38.1U	39.9U
3-Perfluoroheptyl propanoic acid (7:3FTCA)	NS	ng/l	37.9U	38U	37.3U	38.8U	38.1U	39.9U
3-Perfluoropropyl propanoic acid (3:3 FTCA)	NS	ng/l	7.58U	7.6U	7.47U	7.77U	7.62U	7.98U
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
9-Chlorohexadecafluoro-3-Oxanonane-1-Sulfonic Acid (9CI-PF3ONS)	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NS	ng/l	6.07U	6.08U	5.97U	6.21U	6.1U	6.38U
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
N-ethyl perfluorooctanesulfonamidoethanol (NEtFOSE)	NS	ng/l	15.2U	15.2U	14.9U	15.5U	15.2U	16U
N-methyl perfluorooctanesulfonamide (NMeFOSA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
N-methyl perfluorooctanesulfonamidoethanol (NMeFOSE)	NS	ng/l	15.2U	15.2U	14.9U	15.5U	15.2U	16U
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NS	ng/l	3.03U	3.04U	2.99U	3.11U	3.05U	3.19U
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	NS	ng/l	3.03U	3.04U	2.99U	3.11U	3.05U	3.19U
Perfluoro-3-methoxypropanoic acid (PFMPA)	NS	ng/l	3.03U	3.04U	2.99U	3.11U	3.05U	3.19U
Perfluoro-4-methoxybutanoic acid (PFMBA)	NS	ng/l	3.03U	3.04U	2.99U	3.11U	3.05U	3.19U
Perfluorobutanesulfonic acid (PFBS)	NS	ng/l	1.52U	1.01J	0.724J	1.55U	1.52U	1.6U
Perfluorobutanoic Acid	NS	ng/l	6.07U	2.71J	2.91J	9.57	9.24	6.38U
Perfluorodecanesulfonic acid (PFDS)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluorodecanoic acid (PFDA)	NS	ng/l	1.52U	0.935J	1.49U	1.55U	1.52U	1.6U
Perfluorododecanesulfonic acid (PFDoS)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluorododecanoic acid (PFDoA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluoroheptanesulfonic acid (PFHpS)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluoroheptanoic acid (PFHpA)	NS	ng/l	1.52U	1.24J	0.762J	0.396J	0.343J	1.6U
Perfluorohexanesulfonic acid (PFHxS)	NS	ng/l	1.52U	0.738J	0.739J	1.55U	1.52U	1.6U
Perfluorohexanoic acid (PFHxA)	NS	ng/l	1.52U	1.68	0.747J	1.55U	1.52U	1.6U
Perfluorononanesulfonic Acid (PFNS)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluorononanoic acid (PFNA)	NS	ng/l	1.52U	1.06J	1.3J	1.55U	1.52U	1.6U
Perfluorooctane Sulfonamide (PFOSA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluorooctanesulfonic acid (PFOS)	2.7	ng/l	1.52U	3.74	3.17	1.55U	1.52U	1.6U
Perfluorooctanoic acid (PFOA)	6.7	ng/l	1.52U	3.85	5.15	3.22	3.29	1.6U
Perfluoropentanesulfonic Acid (PFPeS)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluoropentanoic Acid (PFPeA)	NS	ng/l	3.03U	1.99J	1.23J	3.11U	3.05U	3.19U
Perfluorotetradecanoic acid (PFTeDA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluorotridecanoic Acid (PFTriA/PFTrDA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U
Perfluoroundecanoic Acid (PFUnA)	NS	ng/l	1.52U	1.52U	1.49U	1.55U	1.52U	1.6U

Notes:

- Concentrations reported in micrograms per liter (ug/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 report limit (RL).
- Bold values indicate analyte was detected.
- Shaded cells indicate the value exceeds the NYS Water Quality Standard.



Source:
 -NYSDOT 7.5-minute topographic map (Moriches quadrangle).
 -Elevations are shown in feet above mean sea level.
 -Contour interval is 10 feet.

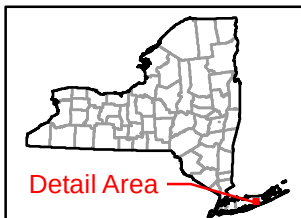


FIGURE 1
 Site Location Map

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



LEGEND

- Monitoring Well
- Obstructed, Damaged, or Inaccessible Monitoring Well
- Approximate Dredge Position (August 2024, Not Operating)
- Haul Road (2022)
- Property Boundary
- Life of Mine

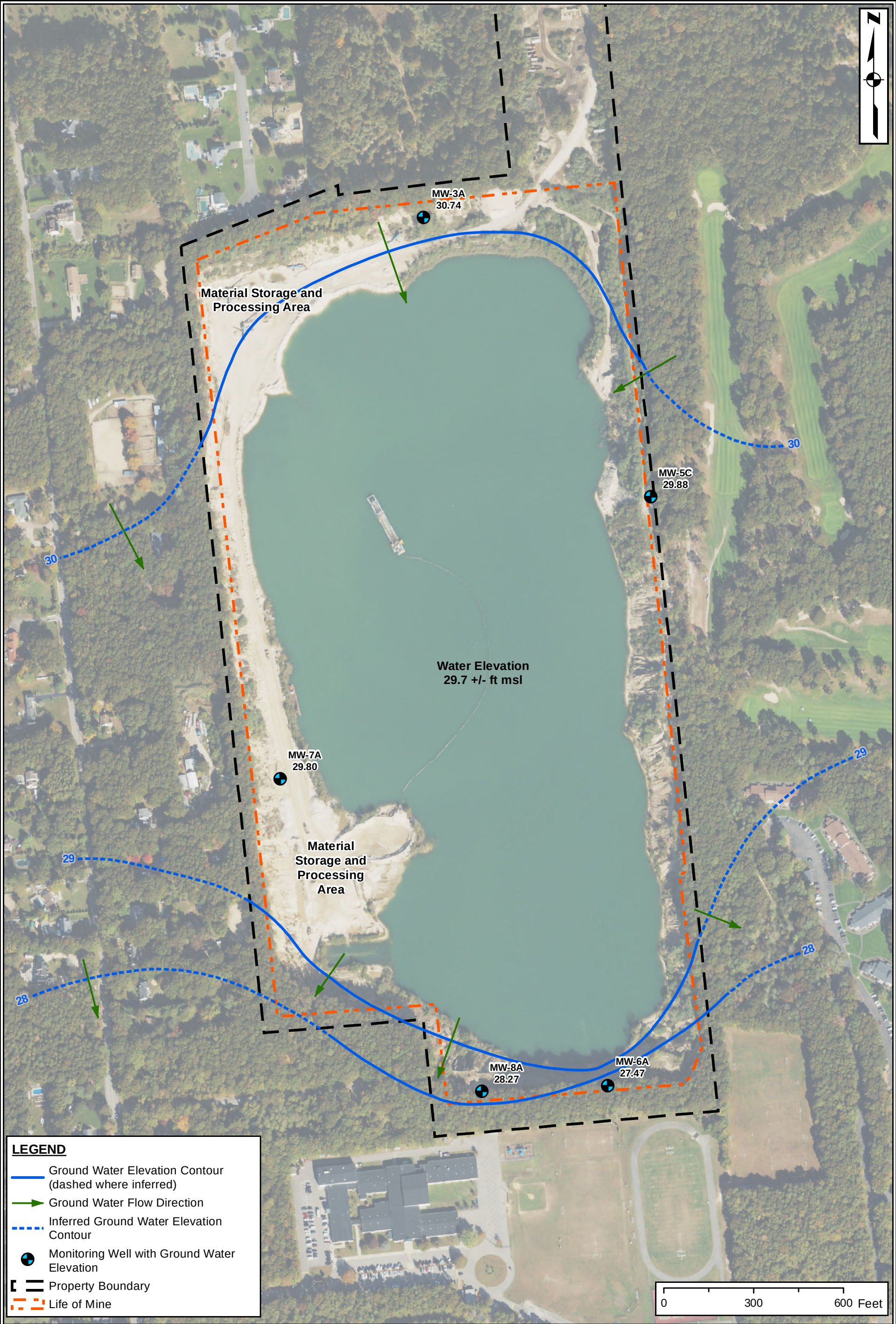
Notes:
-Property boundary, and life of mine are approximate and based on the May 2012 Revised Mining Plan by Harrington Associates.
-Well Locations to be surveyed in July 2024
-Orthoimage (2022) provided by Strategic Mining Solutions from a November 15, 2022 drone survey.

Path: Z:\projects\2012\12121 - 12140\12123 - Ranco\GIS\Well Location Map 2024.mxd
Date Saved: 11/14/2024 3:19:58 PM



FIGURE 2
Well Location Map and Mining Activity - August 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.



FIGURE 3
Ground Water Elevation
Map - August 20, 2024

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 8/21/24

Page 1 of 1

GENERAL

Weather Conditions Sunny, 60°
Site Access/Conditions Good - Not drivable
Physical Condition of Well Good

TD 52.1
(from PVC)

DTW 40.04
(well 3C)
TD 298

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) 39.9 feet
Height of water column: (DTW (6/2024)) (a) 12.7 feet
Screen length (b) 13.9 feet
Lesser of a and b 12.7 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): 8.3 gallons or 31.4 liters
Volume of water equal to five wetted screen volumes: 41.5 gallons or 156.9 liters

Pump Type: Peristaltic Submersible #1 HDPE

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
1026	Pump on	41.34						
1035	4	41.36	0.084	12.48	5.89	11.73	252	0.0
1040	5	41.36	0.083	12.35	5.86	11.64	263	0.0
1045	7	41.36	0.082	12.30	5.87	11.57	267	0.0
1050	10	41.36	0.083	12.26	5.85	11.49	262	0.0
1055	12	41.37	0.083	12.25	5.87	11.39	252	0.0
1100	14	41.37	0.083	12.22	5.85	11.56	244	0.0
1105	16	41.37	0.082	12.17	5.86	11.43	237	0.0
1110	19	41.37	0.082	12.17	5.83	11.43	232	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: 19 gallons/liters
Depth of pump intake: 46.3 feet btoe

OBSERVATIONS

Color clear Odor no
Turbidity none Sheen no
Presence of NAPL no Other
Remarks

SAMPLING INFORMATION

Field Personnel SH/TN
Sampling Method Low-Flow
Sample Date 8/21/24 Time 11:00
Sample Description Clear
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides + PFAS, 1,4 dioxin, radionuclides



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-6A
DATE 8/20/24

Page 1 of 1

GENERAL

Weather Conditions 70s, Sunny/Windy
Site Access/Conditions Good
Physical Condition of Well Good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 75.8 feet
Depth to water surface before purging (from top of casing): (Avg) 52.7 feet
Height of water column: (DTW (6/2024)) (a) 23.1 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: Resistatic submersible #1 HDPE

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
1557	Pump On	53.57						
1605	3	53.58	0.236	14.66	6.23	9.54	148	4.7
1610	5	53.58	0.247	14.45	6.27	8.79	134	1.7
1615	7	53.58	0.255	14.06	5.80	8.39	154	0.0
1620	10	53.58	0.257	14.02	5.75	7.90	153	0.0
1625	13	53.58	0.257	13.99	5.69	7.34	152	0.0
1630	16	53.58	0.258	13.96	5.64	6.73	151	0.0
1635	20	53.58	0.258	13.98	5.62	6.21	150	0.0
1640	23	53.59	0.258	13.97	5.59	5.58	151	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: 23 gallons/liters
Depth of pump intake: 63 65.8 feet btoc

OBSERVATIONS

Color clear Odor none
Turbidity none Sheen no
Presence of NAPL none Other _____
Remarks _____

SAMPLING INFORMATION

Field Personnel SH/TN
Sampling Method Low-Flow
Sample Date 8/20/24 Time 1640
Sample Description _____
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides + PFA, 1,4 dioxane, rad



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-6B
DATE 8/20/24

Page 1 of 1

GENERAL

Weather Conditions 70^s, Sunny/Windy
Site Access/Conditions Good
Physical Condition of Well Good

Battery died - pumped
stopped few min.
(~1430)

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 108.4 feet
Depth to water surface before purging (from top of casing): (Avg) 52.0 feet
Height of water column: (DTW (6/2024)) (a) 56.5 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: Peristaltic Submersible #1 HDPE 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
1411	Pump on	53.46						
1420	4	53.50	0.361	10.68	6.71	0.0	164	0.0
1425	6	53.50	0.363	10.56	6.42	0.0	166	0.0
1435	10	53.50	0.364	10.57	6.21	0.0	167	0.0
1440	12	53.50	0.363	10.55	6.14	0.0	162	0.0
1445	15	53.50	0.363	10.51	6.08	0.0	158	0.0
1450	18	53.50	0.364	10.46	6.03	0.0	156	0.0
1455	21	53.50	0.364	10.43	6.00	0.0	155	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: 21 gallons/liters
Depth of pump intake: 98.4 feet btoc

MS/MSD

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel SH/TN
Sampling Method Low-Flow
Sample Date 8/20/24 Time 1435 (1530 finished)
Sample Description Clear
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides + PFAS, 1,4 dioxane, RADs



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-6C
DATE 8/20/24

Page 1 of 1

GENERAL

Weather Conditions 70s, Sunny/Windy
Site Access/Conditions Good
Physical Condition of Well Good

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 140.6 feet
Depth to water surface before purging (from top of casing): (Avg) 52.8 feet
Height of water column: (DTW (6/2024)) (a) 87.8 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: Peristaltic Submersible #1 LDPB 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
1721	Pump On	53.69						
1730	5	53.71	0.537	10.13	6.14	0.0	144	5.6
1735	9	53.71	0.537	10.07	6.06	0.0	133	0.0
1740	12	53.71	0.537	10.02	6.03	0.0	129	0.0
1745	15	53.71	0.537	10.00	6.00	0.0	127	0.0
1750	18	53.72	0.537	9.96	5.98	0.0	125	0.0
1755	21	53.72	0.537	9.92	5.96	0.0	126	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: 21 gallons/liters
Depth of pump intake: 130.6 feet btoc

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel SJT/TN
Sampling Method Low-Flow
Sample Date 8/20/24 Time 1755
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

WELL ID MW-7A

DATE 8/20/24

Page 1 of 2

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

GENERAL

Weather Conditions Partly cloudy 80s
Site Access/Conditions good
Physical Condition of Well good

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

42.8 feet
21.5 feet
(a) 21.3 feet
(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):
Volume of water equal to five wetted screen volumes:

13.1 gallons or 49.4 liters
65.3 gallons or 247.1 liters

Pump Type: Peristaltic Submersible #2

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
15:37	Start	22.21'	0.161	15.50	6.33	10.79	136	0.0
15:42	2.2g	22.22	0.163	14.78	6.14	8.14	191	0.0
15:47	3.9g	22.22	0.165	14.68	6.01	7.32	213	0.0
15:52	5.5g	22.22	0.166	14.54	5.80	7.13	234	0.0
15:57	7g	22.22	0.167	14.41	6.30	6.45	209	0.0
16:02	8.1g	22.22	0.169	14.39	6.21	6.16	219	0.0
16:07	10.0g	22.22	0.169	14.35	6.06	5.87	229	0.0
16:12	12g	22.22	0.169	14.33	6.31	5.90	216	0.0
16:17	13.5g	22.22	0.171	14.24	6.24	5.31	221	0.0
16:20	14g	22.22	0.173	14.16	6.22	4.82	223	0.0
16:23	15g	22.22	0.174	14.13	6.12	4.53	230	0.0
16:26	16g	22.22	0.175	14.15	6.13	4.33	228	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: 17 gallons/liters
Depth of pump intake: 32.8 feet bto

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel ER
Sampling Method Low-Flow
Sample Date 8/20/24 Time 16:30
Sample Description MW-7A 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

WELL ID MW-7B

DATE 8/21/24

Page 1 of 1

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

GENERAL

Weather Conditions Sunny 80s
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)) 46.2 feet
Screen length 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 #2

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
8:40	Start	22.43	0.245	13.59	6.37	0.33	146	1.7
8:45	2g	22.47	0.243	13.40	6.33	0.0	147	4.1
8:50	4.2g	22.47	0.241	13.38	6.16	0.0	151	1.7
8:55	6.4g	22.47	0.241	13.35	6.18	0.0	147	0.0
9:00	8.2g	22.47	0.241	13.33	6.15	0.0	149	0.0
9:05	10.4g	22.47	0.242	13.28	6.30	0.0	139	0.0
9:10	13.5g	22.47	0.242	13.28	6.49	0.0	130	0.0
9:13	14.5g	22.47	0.242	13.26	6.47	0.0	131	0.0
9:16	15.5g	22.47	0.243	13.26	6.39	0.0	135	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: 15.5 g gallons/liters
Depth of pump intake: 57.9 feet btoc

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel ER
Sampling Method Low-Flow
Sample Date 8/21/24 Time 9:20
Sample Description MW-7B
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 8/21/24
Page 1 of 1

GENERAL

Weather Conditions Sunny 80s
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
 $d^2 \times 0.0408$ 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 #2

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
10:08	Start	22.75	0.219	13.52	5.93	2.32	180	0.0
10:13	2g	22.75	0.225	12.83	5.97	0.03	184	0.0
10:18	4.6g	22.75	0.226	12.74	5.95	0.0	189	0.0
10:24	7g	22.75	0.226	12.69	5.83	0.0	197	0.0
10:30	10g	22.75	0.227	12.63	5.86	0.0	198	0.0
10:35	12g	22.75	0.227	12.62	6.07	0.0	189	0.0
10:38	13.5g	22.75	0.225	12.63	6.04	0.0	192	0.0
10:41	14.6g	22.75	0.224	12.77	6.25	0.0	180	0.0
10:44	15.7g	22.75	0.227	12.68	6.32	0.0	179	0.0
10:47	16.4g	22.75	0.224	12.66	6.34	0.0	177	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: 16.4 gallons/liters
Depth of pump intake: 97.6 feet btoc

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel ER
Sampling Method Low-Flow
Sample Date 8/21/24 Time 10:50
Sample Description MW-7C 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-8A
DATE 8/21/24

Page 1 of 1

GENERAL

Weather Conditions Sunny 80s
Site Access/Conditions Good
Physical Condition of Well Good

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

73.8 feet
63.6 feet
(a) 10.2 feet
(b) 20.0 feet
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):
Volume of water equal to five wetted screen volumes:

1.7 gallons or 6.3 liters
8.3 gallons or 31.3 liters

Pump Type: Peristaltic 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
12:21	Start	64.51	0.359	17.82	6.24	9.15	157	38.3
12:26	0.7g	64.53	0.348	17.60	6.28	6.99	149	31.3
12:31	1.5g	64.53	0.327	17.55	6.33	6.58	137	30.1
12:36	2.2g	64.53	0.321	17.51	6.37	6.43	127	28.1
12:41	3.0g	64.53	0.313	17.21	6.30	6.38	139	26.2
12:48	4.0g	64.53	0.306	17.00	6.13	6.21	155	23.6
12:51	4.4g	64.53	0.306	16.87	6.11	6.22	154	20.0
12:54	4.7g	64.53	0.307	16.82	6.16	6.06	153	0.0
12:57	5.1g	64.53	0.298	16.81	6.37	6.05	140	0.0
13:00	5.3g	64.53	0.297	16.99	6.38	6.04	137	0.0
13:03	6g	64.53	0.299	16.96	6.40	6.04	139	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: 6 gallons/liters
Depth of pump intake: 68.7 feet btoc

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel ER
Sampling Method Low-Flow
Sample Date 8/21/24 Time 13:05
Sample Description MW-8A 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

WELL ID MW-8B

DATE 8/21/24

Page 1 of 2

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

GENERAL

Weather Conditions Sunny 80S
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)) 56.3 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.

Well diameter (d): 2 inches

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 1/2 HP LDFE

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
13:40	Start	65.72	0.282	17.82	6.83	10.70	155	1.4
13:46	2g	65.72	0.284	14.92	7.24	9.62	143	1.9
13:51	3.4g	65.72	0.286	14.67	7.28	8.17	134	4.8
13:56	4.8g	65.72	0.284	14.59	7.28	7.31	129	0.8
14:01	6.3g	65.72	0.283	14.54	7.22	6.20	126	0.0
14:06	7.5g	65.72	0.283	14.47	7.15	5.24	126	0.0
14:09	9g	65.72	0.283	14.43	7.16	4.59	123	0.0
14:13	10.4g	65.72	0.284	14.41	7.16	4.12	118	0.0
14:16	10.8g	65.72	0.283	14.44	7.18	3.83	117	0.0
14:19	11.5g	65.72	0.283	14.39	7.19	3.51	114	0.0
14:22	12.2g	65.72	0.283	14.37	7.20	3.13	111	0.0
14:26	14.5g	65.72	0.283	14.39	7.23	2.70	107	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: 16g gallons/liters
Depth of pump intake: 110.5 feet btoc

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel ER
Sampling Method Low-Flow
Sample Date 8/21/24 Time 14:35
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 Huntington Ready Mixed

PROJECT NUMBER 20116 12123

SITE LOCATION Speonk, NY Manorville NY

WELL ID MW-8B

DATE 8/21/24

Page 2 of 2[illegible]

* - 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



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 8/21/24

Page 1 of 1

GENERAL

Weather Conditions Sunny, 70^s
Site Access/Conditions Good
Physical Condition of Well Good

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

140.3 feet
64.3 feet
(a) 76.0 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: Submersible #1 LDPE

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
1241	Pump On	65.65						
1245	1	65.69	0.327	14.29	6.92	10.95	212	406
1250	3	65.69	0.340	13.97	7.08	7.87	196	94.6
1255	5	65.69	0.338	13.91	7.07	6.24	179	26.0
1300	8	65.69	0.337	13.77	7.07	4.62	165	8.1
1305	10	65.69	0.336	13.78	7.09	3.49	151	0.0
1310	12	65.69	0.335	13.77	7.08	2.67	141	0.0
1315	15	65.69	0.335	13.73	7.09	1.93	131	0.0
1320	17	65.69	0.334	13.74	7.08	1.35	125	0.0
1325	19	65.69	0.335	13.79	7.08	0.89	120	0.0
1330	21	65.69	0.334	13.79	7.08	0.49	115	0.0
1335	23	65.69	0.335	13.73	7.07	0.32	114	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: 25 gallons/liters
Depth of pump intake: 130.3 feet btoc

OBSERVATIONS

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

SAMPLING INFORMATION

Field Personnel SH/TN
Sampling Method Low-Flow
Sample Date 8/21/24 Time 13:40
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-9B
DATE 8/21/24

Page 1 of 1

GENERAL

Weather Conditions 60s Sunny
Site Access/Conditions Good
Physical Condition of Well Good

TD 139.25

PURGING INFORMATION (Based on Average Water Level)

Total well depth (from top of casing): 81.5 feet
Depth to water surface before purging (from top of casing): (Avg) 29.8 feet
Height of water column: (DTW (6/2024)) (a) 51.7 feet
Screen length (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): 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: Peristaltic Submersible HDPE

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
0758	Pump on	30.86						
0805	5	31.0	0.170	11.55	4.91	11.65	244	0.0
0810	10	31.0	0.172	11.48	4.78	9.54	262	0.0
0815	15	31.0	0.172	11.46	4.73	8.09	274	0.0
0820	19	31.0	0.171	11.45	4.76	6.85	280	0.0
0825	23	31.0	0.171	11.44	4.79	5.49	285	0.0
0830	27	31.0	0.171	11.46	4.83	5.04	287	0.0
0835	30	31.0	0.171	11.46	4.84	4.20	290	0.0
0840	34	31.0	0.171	11.46	5.02	3.81	281	0.0
0845	38	31.0	0.171	11.48	5.26	3.41	272	0.0
0850	42	31.0	0.171	11.47	5.51	3.20	262	0.0
0855	46	31.0	0.171	11.46	5.50	2.95	266	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: 50 gallons/liters

Depth of pump intake: 71.5 feet btoc

OBSERVATIONS

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

Dup

SAMPLING INFORMATION

Field Personnel SA/TN
Sampling Method Low-Flow
Sample Date 8/21/24 Time 0900
Sample Description Grab Dup from here
Analysis VOCs, SVOCs, total metals and dissolved, Anions, TDS, PCBs, Pest, Herbicides + PFAS

8/20/24 Tuesday Ranco Quarterly Sampling
Alpha Geo - S. Hu (scapple)
T. Nadeau
E. Rafferty

1315 SH/TN arrive on-site; ER already onsite doing water levels
Speak w/ Matt Metz; he questions need to do 9B. This well
is not required in permit conditions. Steve Truden says the 2 new
wells (9B + 8C2) will only be sampled as part of LI ground water
study.
CH to 6 cluster will sample ^{PFA+} 6B (MS/MSD), ^{PFA+} 6A, and ^{no PFA} 6C

1410 start purging 6B Pump #1 HDPE Tubing

1455-1530 Sample 6B w/MS/MSD

1557 start purging 6A Pump #1 HDPE Tubing

1640-1650 Sample 6A (Lubbs say 16:30); DO still dropping - Spinn but purged 75 well volume
and all other parameters were stable

1720 start 6C pump #1 LDPE tubing

1755 Sample 6C

1822 Fowler (cleanup off-site; PAA cover picked up @ 1700)

8/21/24 - Wednesday

700 SH/TN on-site; ER getting ice

SH/TN to MW-9B; start calibrating Horiba's + setting up to sample 9B

730 ER on-site and to MW 7 cluster

758 start purging MW-9B will collect dup from here.
Using pump 1 + HDPE tubing

900 start sample MW-9B ^{PFA+} (Total 50 gal purged); Pump was not set deep enough
But purged way more than 3 well volumes and parameters were stable low turb
so it is representative of GW

930 prepared Field blank w/ 196 provided water. Lab did not provide
ER blank. Set so used extra metals bottle + submitted ER blank for
metals only

1026 start purge MW-3A w/pump #1 + HDPE tubing

1110 Sample 3A incl PFA+

1130 Head to 8 Cluster; ER already there set up on
MW-8A; SH sets up on MW-8C2

1340 Sample 8C2; ER almost ready to start MW-8B

1040 TD at 248' hung up a little
at 120' + 190' but got to bottom
with little issue. Tape - stuck
at 195' on the way out.
Spoke to ST may have to leave
tape as is and risk breaking
it

Ranco Continued 8/21/24

1420 Cleaning up: ER purging 88 samples soon

1432 begin sample

1500 Finished cleaning up; SH to Paco Mawak to drop off
Samples; ER/TN to drop trash in dumpster then leave

Smith

8/21/24

8/21/24

7:00 am TN, CR, SM on site to cluster
Sampling wells.

Return site later

8/20/24

11:30 E. Pufferby onsite to take

WLS & Sample wells.

	DTW	TD (Measured onsite)	
MW-3A	40.64'		Measured WLS 8/21/24.
MW-5A	>48.55'	48.55'	(obstruction, essentially inaccessible)
MW-5B	Destroyed at surface.		PC broken & no obstructed cap.
MW-5C	71.39'	268.33'	~~essentially inaccessible~~
MW-6A	53.66'		TOC MP No cap
MW-6B	52.89'		No cap
MW-6C	53.36'		No cap
MW-7A	22.20'		No cap as of 8/20/24
MW-7B	22.39'		No cap 8/20/24
MW-8A	64.53'		No cap 8/20/24
MW-8C2	65.24'		No cap 8/20/24
MW-9B	30.54'		No well cap as of 8/20/24
MW-7C	22.71'		No cap 8/20/24
MW-8B	65.06'		No cap 8/20/24
MW-3C	70.04'		(8/21 TD=248)

16:30 Sample MW-7A



Horiba Field Calibration Record

ALPHA GEOSCIENCE
679 Plank Road
Clifton Park, NY 12065

Project Name: Huntington Ready Mixed + Rando

Project No. 20116

Date: 8/20/24

Field Personnel: S. Hulsepp

Equipment ID: FAD 2666 (54)

Model No.: U-52

Last Lab Calibration Date: 8/15/24

Air Temperature (deg C): 21.5

Barometric Pressure (mmHg): 29.81 in

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: 8/20

Time: 7:30

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH (+/- 0.1)	SU	4.0	3.90	4.00	Y	
Conductivity (+/- 0.2)	mS/cm	4.49	4.49	4.48	Y	
Turbidity (<0.1)	NTU	0	1.3	0.0	Y	
D.O. Sat* (+/- 0.2)	ppm	8.9	9.36	9.07	Y	
D.O. Zero (<0.1)	ppm	0	0.0	0.0	Y	did not need to re-zero

Equipment ID: FA05169 (ER)

Model No.: U-52

Last Lab Calibration Date: 8/15/24

Air Temperature (deg C): 21.5

Barometric Pressure (mmHg): 29.81 in

Date: 8/20

Time: 7:30

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH	SU	4.0	21.10	4.00	Y	
Conductivity	mS/cm	4.49	4.43	4.49	Y	
Turbidity	NTU	0	0.1	0.0	Y	
D.O. Sat*	ppm	8.9	10.39	9.18	Y	
D.O. Zero	ppm	0	0.0	0.0	Y	Did not need to re-zero



Horiba Field Calibration Record

ALPHA GEOSCIENCE
679 Plank Road
Clifton Park, NY 12065

Project Name: Ranco

Project No. 12123

Date: 8/21/24

Field Personnel: S. Hulseapple/T. Nadeau

Equipment ID: FA 02666

Model No.: U-52

Last Lab Calibration Date: _____

Air Temperature (deg C): 13.8

Barometric Pressure (mmHg): 762

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: 8/21/24

Time: 700

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	NA	Y	
Conductivity (+/- 0.2)	mS/cm	4.49	4.53	NA	Y	
Turbidity (<0.1)	NTU	0	0	NA	Y	
D.O. Sat* (+/- 0.2)	ppm	10.29	11.44			Cal to moist air
D.O. Zero (<0.1)	ppm	0				

Equipment ID: FA 05169

Model No.: U-52

Last Lab Calibration Date: _____

Air Temperature (deg C): 13.8

Barometric Pressure (mmHg): 762

Date: 8/21/24

Time: 700

Field Auto Calibration Check

Parameter	Units	Standard Value	Pre-Calibrated Value	Post-Calibrated Value	Pass (Y/N)	Notes
pH	SU	4.0	4.13	4.02	Y	
Conductivity	mS/cm	4.49	4.55	4.51	Y	
Turbidity	NTU	0	0.8	0	Y	
D.O. Sat*	ppm		11.52	11.4	Y	To moist A.
D.O. Zero	ppm	0	0.0	0.0	Y	



Calibration Certificate

rev 8/9/11

Work Order No.: SE-134582
Date of Service: 08/15/24
Order Time: 11:23:23 AM

Unit Under Test: Horiba U-52-2, 2m cable

Asset No.: FA05169 Technician: Haley Steinbruckner
Serial No: U5FVSM2M-3TDD7YY0

Initials: HS

TEST	Specification	Result
Standard Calibration	Pass/Fail	pass

TEST STANDARDS USED:

DESCRIPTION	LOT NO./EXPIRATION DATE	QUANTITY
100 NTU Horiba Standard for U-52	Lot#24010943 Exp: 04/25	1
AUTOCAL: pH4, Cond 4.49 mS/cm, Turb 0.0 NTU	Lot No. 24005593 Exp. 10/31/2024	1
pH 10.00 Standard Solution	Lot No. 3GL0168 Exp: 12/2025	1
pH 7.00 Standard Solution	Lot No. 4GF0046 Exp. 06/2026	1
ORP Standard Solution	Lot No. 24A100343 Exp. 01/16/2029	1
Air Saturated Water		1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.



Calibration Certificate

rev 8/9/11

Work Order No.: SE-134582
Date of Service: 08/15/24
Order Time: 11:23:23 AM

Unit Under Test: Horiba U-52-2, 2m cable

Asset No.: FA02666 Technician: Haley Steinbruckner
Serial No: YDL808ST/KP5XP8NP

Initials: HS

TEST	Specification	Result
Standard Calibration	Pass/Fail	pass

TEST STANDARDS USED:

DESCRIPTION	LOT NO./EXPIRATION DATE	QUANTITY
AUTOCAL: pH4, Cond 4.49 mS/cm, Turb 0.0 NTU	Lot No. 2400S593 Exp. 10/31/2024	1
pH 10.00 Standard Solution	Lot No. 3GL0168 Exp: 12/2025	1
pH 7.00 Standard Solution	Lot No. 4GF0046 Exp. 06/2026	1
ORP Standard Solution	Lot No. 24A100343 Exp. 01/16/2029	1
100 NTU Horiba Standard for U-52	Lot#24010943 Exp: 04/25	1
Air Saturated Water		1

TEST EQUIPMENT USED:

DESCRIPTION	ASSET NO.	SERIAL NO.	DATE OF LAST CAL	DATE CAL DUE

Test Equipment and standards are traceable to National standards.

APPENDIX B

Laboratory Summary Reports



Geology

Hydrology

Remediation

Water Supply

**Data Usability Summary Report
for Alpha Analytical Labs
SDG Number: L2447890**

**11 Ground Water Samples, 1 Field Duplicate,
1 Field Blank, Equipment Blank, and 1 Trip Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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, and 1 trip blank; the results of semi-volatiles, pesticides, herbicides, and PCBs analyses for 11 ground water samples, 1 field duplicate, and 1 field blank; the results of TAL metals analyses for 11 ground water samples, 1 field duplicate, 1 field blank, and 1 equipment 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, 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 positive volatile result for acetone was qualified as “estimated” (J) for FIELD BLANK because the %D for acetone was above the allowable maximum in the associated continuing calibration verification sample.
- The “not detected” volatile result for 1,4-dioxane was qualified as “rejected, unusable” (R) for TRIP BLANK because the RRF for 1,4-dioxane was below the allowable minimum in the associated continuing calibration verification sample.
- The “not detected” semi-volatile results for 2,3,4,6-tetrachlorophenol were qualified as “estimated” (UJ) for samples MW-6A, MW-6B, MW-6C, and MW-7A because 1 of 2 percent recoveries for 2,3,4,6-tetrachlorophenol was below QC limits, but not below 30% for the associated aqueous LCS/LCSD.

- The “not detected” semi-volatile results for hexachlorocyclopentadiene were qualified as “rejected, unusable” (R) for samples MW-6A, MW-6B, MW-6C, and MW-7A because 1 of 2 percent recoveries for hexachlorocyclopentadiene were below QC limits and one below 30% for the associated aqueous LCS/LCSD.
- Positive semi-volatile results for phenol were qualified as “not detected” (U) for the following samples because the level reported in the samples were not significantly greater than (more than 5 times) the highest associated blank level.

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

- The “not detected” SIM semi-volatile result for pentachlorophenol was qualified as “estimated” (UJ) for sample MW-6B because the 1 of 2 percent recoveries for pentachlorophenol was below QC limits, but not below 30% in the aqueous MS/MSD sample.
- The “not detected” SIM semi-volatile result for hexachlorobutadiene were qualified as “estimated” (UJ) for samples MW-6A, MW-6B, MW-6C, and MW-7A because the 1 of 2 percent recoveries for hexachlorobutadiene was below QC limits, but not below 30% in the associated aqueous LCS/LCSD.
- The positive SIM semi-volatile results for phenanthrene were qualified as “not detected” (U) for samples MW-7B, MW-8A, and MW-8B because the level reported in the samples were not significantly greater than (more than 5 times) the highest associated blank level.
- The positive SIM semi-volatile results for naphthalene were qualified as “not detected” (U) for samples MW-8B 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 SIM semi-volatile results for acenaphthene were qualified as “not detected” (U) for samples MW-7B and MW-8A because the level reported in the samples were not significantly greater than (more than 5 times) the highest associated blank level.
- The positive SIM semi-volatile result for fluoranthene was qualified as “not detected” (U) for sample MW-8B because the level reported in the sample was not significantly greater than (more than 5 times) the highest associated blank level.

- The positive dissolved and total metal results for sodium were qualified as “estimated” (J) for samples MW-6A and MW-7C because the dissolved concentrations were greater than the total concentrations plus 10%.
- The positive dissolved and total metal results for manganese were qualified as “estimated” (J) for samples MW-6C and MW-9B because the dissolved concentrations were greater than the total concentrations plus 10%.
- The positive dissolved and total metal results for chromium were qualified as “estimated” (J) for sample DUP because the dissolved concentration was greater than the total concentrations plus 10%.
- The positive dissolved metal result for chromium was qualified as estimated (J) for sample MW-9B because the relative percent difference for chromium was above the allowable maximum for the aqueous field duplicate pair MW-9B/DUP.
- The positive general chemistry results for total kjeldahl nitrogen (TKN) were qualified as estimated (J) for the following samples because the relative percent differences for TKN were above the allowable maximum for the aqueous duplicate samples.

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

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

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

- The “not detected” general chemistry results for sulfide were qualified as estimated (UJ) for the following samples because the samples were analyzed beyond USEPA SW-846 holding times.

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

All data that are not qualified rejected (R) are considered usable with estimated (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.

Alpha Geoscience: Acronyms and Definitions

Data Validation Acronyms

AA	Atomic absorption, flame technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene
CCB	Continuing calibration blank
CCC	Calibration check compound
CCV	Continuing calibration verification
CN	Cyanide
CRDL	Contract required detection limit
CRQL	Contract required quantitation limit
CVAA	Atomic adsorption, cold vapor technique
DCAA	2,4-Dichlophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine
ECD	Electron capture detector
FAA	Atomic absorption, furnace technique
FID	Flame ionization detector
FNP	1-Fluoronaphthalene
GC	Gas chromatography
GC/MS	Gas chromatography/mass spectrometry
GPC	Gel permeation chromatography
ICB	Initial calibration blank
ICP	Inductively coupled plasma-atomic emission spectrometer
ICV	Initial calibration verification
IDL	Instrument detection limit
IS	Internal standard
LCS	Laboratory control sample
LCS/LCSD	Laboratory control sample/laboratory control sample duplicate
MSA	Method of standard additions
MS/MSD	Matrix spike/matrix spike duplicate
PID	Photo ionization detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
QA	Quality assurance
QC	Quality control
RF	Response factor
RPD	Relative percent difference
RRF	Relative response factor
RRF(number)	Relative response factor at concentration of the number following
RT	Retention time
RRT	Relative retention time
SDG	Sample delivery group
SPCC	System performance check compound
TCX	Tetrachloro-m-xylene
%D	Percent difference
%R	Percent recovery
%RSD	Percent relative standard deviation

Data Validation Qualifiers Used in the QA/QC Reviews for USEPA Region II

U	=	Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank.
R	=	Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
N	=	Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
J	=	Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
J-	=	Analyte is present. Reported value may be biased low and associated with a higher level of uncertainty than is normally expected with the analytical method.
J+	=	Analyte is present. Reported value may be biased high and associated with a higher level of uncertainty than is normally expected with the analytical method.
UJ	=	Not detected, quantitation limit may be inaccurate or imprecise.

Note: These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.

Polyfluorinated Alkyl Substances (PFAS) Acronyms

PFBA	Perfluorobutanoic acid
PFPeA	Perfluoropentanoic acid
PFHxA	Perfluorohexanoic acid
PFHpA	Perfluoroheptanoic acid
PFOA	Perfluorooctanoic acid
PFNA	Perfluorononanoic acid
PFDA	Perfluorodecanoic acid
PFUnA	Perfluoroundecanoic acid
PFDoA	Perfluorododecanoic acid
PFTriA or PFTrDA	Perfluorotridecanoic acid
PFTeA or PFTA	Perfluorotetradecanoic acid
PFBS	Perfluorobutanesulfonic acid
PFPeS	Perfluoropentanesulfonic acid
PFHxS	Perfluorohexanesulfonic acid
PFHpS	Perfluoroheptanesulfonic acid
PFOS	Perfluorooctanesulfonic acid
PFNS	Perfluorononanesulfonic acid
PFDS	Perfluorodecanesulfonic acid
FOSA	Perfluorooctane Sulfonamide
NMeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid
NEtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid
4:2 FTS or 4:2	1H, 1H, 2H, 2H-perfluorohexanesulfonic acid
6:2 FTS or 6:2	1H, 1H, 2H, 2H-perfluorooctanesulfonic acid or 6:2 Fluorotelomersulfonate
8:2 FTS or 8:2	1H, 1H, 2H, 2H-perfluorodecanesulfonic acid or 8:2 Fluorotelomersulfonate

Qualified Data Section

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:03
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:03
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:03
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:25
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:25
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:25
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:47
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:47
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A10
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 09:47
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:09
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:09
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A11
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:09
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:30
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:30
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A12
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:30
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:52
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:52
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A13
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:52
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:14
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:14
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A14
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:14
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:36
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:36
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A15
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:36
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:58
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:58
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A16
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:58
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:20
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:20
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A17
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:20
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:42
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:42
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A18
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:42
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 13:04
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 13:04
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240827A19
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 13:04
 Dilution Factor : 1
 Analyst : MAG
 Instrument ID : VOA130
 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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240826A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 09:24
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA130
 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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240826A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 09:24
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA130
 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	2.3	5.0	1.5	J J
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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V30240826A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 09:24
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA130
 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 : L2447890-15
 Client ID : TRIP BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V22240826A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 10:23
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA122
 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 : L2447890-15
 Client ID : TRIP BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V22240826A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 10:23
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA122
 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 R



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-15
 Client ID : TRIP BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260D
 Lab File ID : V22240826A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 10:23
 Dilution Factor : 1
 Analyst : MJV
 Instrument ID : VOA122
 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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:10
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:10
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:10
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:11
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : MRG
 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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:11
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : MRG
 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
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	1.6	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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 10:11
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : MRG
 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	UJ



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:28
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : MRG
 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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:28
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : MRG
 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
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	0.82	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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 11:28
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : MRG
 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	UJ



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:54
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : IM
 Instrument ID : SV112
 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	1.2	5.0	0.91	J
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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:54
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : IM
 Instrument ID : SV112
 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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:54
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : IM
 Instrument ID : SV112
 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	UJ



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 18:17
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : IM
 Instrument ID : SV112
 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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 18:17
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : IM
 Instrument ID : SV112
 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	0.75	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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 18:17
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : IM
 Instrument ID : SV112
 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	UJ



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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	4.2	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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:56
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:56
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:56
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:19
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:19
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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	1.2	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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:19
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:42
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:42
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:42
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:05
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:05
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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	0.84	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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:05
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:28
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:28
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:28
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EK
 Instrument ID : SV112
 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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:03
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : IM
 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
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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:03
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : IM
 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	1.4	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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:03
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : IM
 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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:27
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : IM
 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
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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:27
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : IM
 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	7.4	5.0	0.35	
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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:27
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : IM
 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 : L2447890-13RE
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-13
 Sample Amount : 88 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/30/24 10:40
 Date Extracted : 08/29/24
 Dilution Factor : 1
 Analyst : SMZ
 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	2.3	0.44	U
91-94-1	3,3'-Dichlorobenzidine	ND	5.7	2.1	U
121-14-2	2,4-Dinitrotoluene	ND	5.7	0.61	U
606-20-2	2,6-Dinitrotoluene	ND	5.7	0.96	U
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.3	0.44	U
101-55-3	4-Bromophenyl phenyl ether	ND	2.3	0.28	U
108-60-1	Bis(2-chloroisopropyl)ether	ND	2.3	0.46	U
111-91-1	Bis(2-chloroethoxy)methane	ND	5.7	0.96	U
77-47-4	Hexachlorocyclopentadiene	ND	23	1.4	U
78-59-1	Isophorone	ND	5.7	0.98	U
98-95-3	Nitrobenzene	ND	2.3	0.23	U
86-30-6	NDPA/DPA	ND	2.3	1.0	U
621-64-7	n-Nitrosodi-n-propylamine	ND	5.7	1.0	U
117-81-7	Bis(2-ethylhexyl)phthalate	ND	3.4	1.6	U
85-68-7	Butyl benzyl phthalate	ND	5.7	3.0	U
84-74-2	Di-n-butylphthalate	ND	5.7	1.1	U
117-84-0	Di-n-octylphthalate	ND	5.7	2.6	U
84-66-2	Diethyl phthalate	ND	5.7	0.87	U
131-11-3	Dimethyl phthalate	ND	5.7	1.0	U
92-52-4	Biphenyl	ND	2.3	0.22	U
106-47-8	4-Chloroaniline	ND	5.7	0.53	U
88-74-4	2-Nitroaniline	ND	5.7	1.2	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13RE
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-13
 Sample Amount : 88 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/30/24 10:40
 Date Extracted : 08/29/24
 Dilution Factor : 1
 Analyst : SMZ
 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	5.7	1.3	U
100-01-6	4-Nitroaniline	ND	5.7	1.6	U
132-64-9	Dibenzofuran	ND	2.3	0.46	U
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	11	0.27	U
98-86-2	Acetophenone	ND	5.7	1.0	U
88-06-2	2,4,6-Trichlorophenol	ND	5.7	2.4	U
59-50-7	p-Chloro-m-cresol	ND	2.3	0.69	U
95-57-8	2-Chlorophenol	ND	2.3	0.74	U
120-83-2	2,4-Dichlorophenol	ND	5.7	1.9	U
105-67-9	2,4-Dimethylphenol	ND	5.7	2.3	U
88-75-5	2-Nitrophenol	ND	11	2.2	U
100-02-7	4-Nitrophenol	ND	11	1.6	U
51-28-5	2,4-Dinitrophenol	ND	23	6.2	U
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.6	U
108-95-2	Phenol	2.3	5.7	0.40	J
95-48-7	2-Methylphenol	ND	5.7	2.6	U
108-39-4/106-44-5	3-Methylphenol/4-Methylphenol	ND	5.7	1.6	U
95-95-4	2,4,5-Trichlorophenol	ND	5.7	2.4	U
86-74-8	Carbazole	ND	2.3	0.35	U
1912-24-9	Atrazine	ND	11	1.2	U
100-52-7	Benzaldehyde	ND	5.7	1.3	U
105-60-2	Caprolactam	ND	11	1.4	U



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13RE
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 47890-13
 Sample Amount : 88 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/30/24 10:40
 Date Extracted : 08/29/24
 Dilution Factor : 1
 Analyst : SMZ
 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	5.7	2.5	U



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-01
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:13
 Date Extracted : 08/27/24
 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	0.05	0.10	0.03	J
207-08-9	Benzo(k)fluoranthene	0.05	0.10	0.03	J
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	0.05	0.10	0.02	J
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	0.05	0.10	0.02	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.05	0.10	0.02	J
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 : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-02
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:03
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV120
 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 UJ
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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-03
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:19
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV120
 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 UJ
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 UJ
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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-04
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:36
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV120
 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 UJ
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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-05
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 12:52
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : JJW
 Instrument ID : SV120
 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 UJ
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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-06
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:29
 Date Extracted : 08/27/24
 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	0.03	0.10	0.02	J	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	0.05	0.10	0.03	J	
85-01-8	Phenanthrene	0.06	0.10	0.04	J	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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-07
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:45
 Date Extracted : 08/27/24
 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	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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-08
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 19:01
 Date Extracted : 08/27/24
 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	0.04	0.10	0.02	J	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	0.06	0.10	0.03	J	
85-01-8	Phenanthrene	0.07	0.10	0.04	J	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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-09
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 19:17
 Date Extracted : 08/27/24
 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	0.04	0.10	0.03	J 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	0.04	0.10	0.02	J
205-99-2	Benzo(b)fluoranthene	0.07	0.10	0.03	J
207-08-9	Benzo(k)fluoranthene	0.07	0.10	0.03	J
218-01-9	Chrysene	0.05	0.10	0.03	J
208-96-8	Acenaphthylene	ND	0.10	0.02	U
120-12-7	Anthracene	0.04	0.10	0.02	J
191-24-2	Benzo(ghi)perylene	0.07	0.10	0.02	J
86-73-7	Fluorene	ND	0.10	0.03	U
85-01-8	Phenanthrene	0.04	0.10	0.04	J U
53-70-3	Dibenzo(a,h)anthracene	0.07	0.10	0.02	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.08	0.10	0.02	J
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	0.04	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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-10
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 19:34
 Date Extracted : 08/27/24
 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	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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-11
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 19:50
 Date Extracted : 08/27/24
 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	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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-12
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 14:56
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : MRG
 Instrument ID : SV119
 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	0.13	0.10	0.03	
87-86-5	Pentachlorophenol	0.06	0.80	0.06	J
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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 47890-13
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:13
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : MRG
 Instrument ID : SV119
 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	0.03	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	0.06	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
1,4 Dioxane by 8270E-SIM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F508282406
Sample Amount : 260 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 11:10
Date Received : 08/21/24
Date Analyzed : 08/28/24 10:41
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : PAH5
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
Project Name : RANCO MINE
Lab ID : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F508282407
Sample Amount : 250 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:08
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : PAH5
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 : L2447890-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F508282408
Sample Amount : 275 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 14:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:41
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : PAH5
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	136	30.8	U



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

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F608282403
Sample Amount : 245 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 09:27
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : GCMS6
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	153	34.6	U



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

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F608282404
Sample Amount : 250 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 09:51
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : GCMS6
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 : L2447890-13
Client ID : FIELD BLANK
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8270E-SIM
Lab File ID : F608282405
Sample Amount : 275 ml
Extraction Method : EPA 3510C
Extract Volume : 2500 uL
GPC Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 10:17
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : GRS
Instrument ID : GCMS6
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	136	30.8	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-07
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:25
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary
Form 1
Chlorinated Herbicides by GC

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8151A
Lab File ID : 17240828a-08
Sample Amount : 1000 ml
Extraction Method : EPA 8151A
Extract Volume : 10000 uL
GPC Cleanup : N
Sulfur Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 12:44
Date Extracted : 08/25/24
Dilution Factor : 1
Analyst : MMG
Instrument ID : PEST17
GC Column : STX-CLP1
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-09
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 13:02
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-17
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:29
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-19
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:06
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-20
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:25
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-21
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:43
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-22
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:02
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240827a-18
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 13:07
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : JAG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240827a-19
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 13:25
 Date Extracted : 08/25/24
 Dilution Factor : 1
 Analyst : JAG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-04
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 11:30
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-05
 Sample Amount : 1000 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 11:48
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	10.0	0.498	U
93-76-5	2,4,5-T	ND	2.00	0.531	U
93-72-1	2,4,5-TP (Silvex)	ND	2.00	0.539	U



Results Summary

Form 1

Chlorinated Herbicides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8151A
 Lab File ID : 17240828a-06
 Sample Amount : 800 ml
 Extraction Method : EPA 8151A
 Extract Volume : 10000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:07
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST17
 GC Column : STX-CLP1
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
94-75-7	2,4-D	ND	12.5	0.622	U
93-76-5	2,4,5-T	ND	2.50	0.664	U
93-72-1	2,4,5-TP (Silvex)	ND	2.50	0.674	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-49
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 16:57
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-50
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 17:07
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240828a-52
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 16:13
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : MHG
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-51
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 17:16
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-52
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 17:25
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-53
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 17:35
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-54
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 17:45
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-55
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 17:54
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-56
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 18:03
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-57
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 18:13
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-58
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 18:22
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-59
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 18:32
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Polychlorinated Biphenyls by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8082A
 Lab File ID : P2240829a-60
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : Y

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 18:41
 Date Extracted : 08/28/24
 Dilution Factor : 1
 Analyst : AD
 Instrument ID : PEST2
 GC Column : CLP-Pesticide
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
12674-11-2	Aroclor 1016	ND	0.071	0.061	U
11104-28-2	Aroclor 1221	ND	0.071	0.061	U
11141-16-5	Aroclor 1232	ND	0.071	0.061	U
53469-21-9	Aroclor 1242	ND	0.071	0.061	U
12672-29-6	Aroclor 1248	ND	0.071	0.061	U
11097-69-1	Aroclor 1254	ND	0.071	0.061	U
11096-82-5	Aroclor 1260	ND	0.071	0.061	U
37324-23-5	Aroclor 1262	ND	0.071	0.061	U
11100-14-4	Aroclor 1268	ND	0.071	0.061	U
1336-36-3	PCBs, Total	ND	0.071	0.061	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-31
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:22
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-31
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:22
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-32
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-32
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-33
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:44
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-33
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:44
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-36
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 13:17
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-36
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 13:17
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-42
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 14:37
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-42
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 14:37
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-37
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 13:28
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-37
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 13:28
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : MMG
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-43
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 14:49
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-43
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 14:49
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-44
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:00
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-44
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:00
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-45
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:11
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-45
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:11
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-46
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:22
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary
Form 1
Organochlorine Pesticides by GC

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,8081B
Lab File ID : 10240828a-46
Sample Amount : 140 ml
Extraction Method : EPA 3510C
Extract Volume : 1000 uL
GPC Cleanup : N
Sulfur Cleanup : N

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 15:22
Date Extracted : 08/27/24
Dilution Factor : 1
Analyst : EMR
Instrument ID : PEST10
GC Column : CLPPesticides
%Solids : N/A
Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-47
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-47
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:33
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-48
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:44
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-48
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:44
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-49
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:55
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
319-86-8	Delta-BHC	ND	0.014	0.003	U
58-89-9	Lindane	ND	0.014	0.003	U
319-84-6	Alpha-BHC	ND	0.014	0.003	U
319-85-7	Beta-BHC	ND	0.014	0.004	U
76-44-8	Heptachlor	ND	0.014	0.002	U
309-00-2	Aldrin	ND	0.014	0.002	U
1024-57-3	Heptachlor epoxide	ND	0.014	0.003	U
72-20-8	Endrin	ND	0.029	0.003	U
7421-93-4	Endrin aldehyde	ND	0.029	0.006	U
53494-70-5	Endrin ketone	ND	0.029	0.003	U
60-57-1	Dieldrin	ND	0.029	0.003	U
72-55-9	4,4'-DDE	ND	0.029	0.003	U
72-54-8	4,4'-DDD	ND	0.029	0.003	U
50-29-3	4,4'-DDT	ND	0.029	0.003	U
959-98-8	Endosulfan I	ND	0.014	0.002	U
33213-65-9	Endosulfan II	ND	0.029	0.004	U
1031-07-8	Endosulfan sulfate	ND	0.029	0.003	U
72-43-5	Methoxychlor	ND	0.143	0.005	U
8001-35-2	Toxaphene	ND	0.143	0.045	U
5103-71-9	cis-Chlordane	ND	0.014	0.005	U
5103-74-2	trans-Chlordane	ND	0.014	0.004	U



Results Summary

Form 1

Organochlorine Pesticides by GC

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,8081B
 Lab File ID : 10240828a-49
 Sample Amount : 140 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N
 Sulfur Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 15:55
 Date Extracted : 08/27/24
 Dilution Factor : 1
 Analyst : EMR
 Instrument ID : PEST10
 GC Column : CLPPesticides
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
57-74-9	Chlordane	ND	0.143	0.033	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_19
 Sample Amount : 527.51 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:21
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	6.07	0.970	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.03	0.811	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.52	0.508	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.07	1.58	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.52	0.447	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.52	0.265	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.52	0.303	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.52	0.364	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.52	0.660	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.07	2.05	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.52	0.409	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.52	0.478	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.52	0.690	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.52	0.614	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.07	2.36	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.52	0.470	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.52	0.826	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.52	0.660	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_19
 Sample Amount : 527.51 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:21
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	1.52	0.349	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.52	0.409	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.52	0.819	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.52	0.698	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.52	0.569	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.52	0.402	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.07	0.849	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.07	0.955	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.52	0.576	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.07	1.25	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.07	1.25	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.52	0.660	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.52	0.698	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.2	3.56	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_19
 Sample Amount : 527.51 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:21
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	15.2	1.86	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.03	0.432	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.03	0.402	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.03	0.334	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.03	1.79	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.58	2.50	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.9	8.87	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.9	5.98	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_20
 Sample Amount : 526.06 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:34
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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)	2.71	6.08	0.973	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.99	3.04	0.814	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	1.01	1.52	0.509	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.08	1.59	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	1.68	1.52	0.449	
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.52	0.266	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	1.24	1.52	0.304	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.738	1.52	0.365	J
335-67-1	Perfluorooctanoic Acid (PFOA)	3.85	1.52	0.662	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.08	2.05	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.52	0.410	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.06	1.52	0.479	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	3.74	1.52	0.692	
335-76-2	Perfluorodecanoic Acid (PFDA)	0.935	1.52	0.616	J
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.08	2.36	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.52	0.471	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.52	0.829	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.52	0.662	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_20
 Sample Amount : 526.06 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:34
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	1.52	0.350	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.52	0.410	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.52	0.821	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.52	0.700	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.52	0.570	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.52	0.403	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.08	0.852	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.08	0.958	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.52	0.578	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.08	1.25	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.08	1.25	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.52	0.662	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.52	0.700	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.2	3.57	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_20
 Sample Amount : 526.06 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:34
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	15.2	1.86	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.04	0.433	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.04	0.403	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.04	0.334	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.04	1.79	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.60	2.51	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.0	8.90	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.0	6.00	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_21
 Sample Amount : 535.63 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:46
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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)	2.91	5.97	0.956	J
2706-90-3	Perfluoropentanoic Acid (PFPeA)	1.23	2.99	0.799	J
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	0.724	1.49	0.500	J
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.97	1.56	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	0.747	1.49	0.441	J
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.49	0.261	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.762	1.49	0.299	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	0.739	1.49	0.358	J
335-67-1	Perfluorooctanoic Acid (PFOA)	5.15	1.49	0.650	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.97	2.02	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.49	0.403	U
375-95-1	Perfluorononanoic Acid (PFNA)	1.30	1.49	0.470	J
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	3.17	1.49	0.680	
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.49	0.605	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.97	2.32	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.49	0.463	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.49	0.814	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.49	0.650	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_21
 Sample Amount : 535.63 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:46
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	0.344	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.49	0.403	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.49	0.806	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.49	0.687	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.49	0.560	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.49	0.396	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	5.97	0.836	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	5.97	0.941	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.49	0.568	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	5.97	1.23	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	5.97	1.23	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.49	0.650	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.49	0.687	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	14.9	3.51	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_21
 Sample Amount : 535.63 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 09:46
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	1.83	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	2.99	0.426	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	2.99	0.396	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	2.99	0.328	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	2.99	1.76	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.47	2.46	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	37.3	8.74	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	37.3	5.89	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_24
 Sample Amount : 515.01 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:25
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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)	9.57	6.21	0.994	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.11	0.831	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.55	0.520	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.21	1.62	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.55	0.458	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.55	0.272	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.396	1.55	0.311	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.55	0.373	U
335-67-1	Perfluorooctanoic Acid (PFOA)	3.22	1.55	0.676	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.21	2.10	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.55	0.419	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.55	0.489	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.55	0.707	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.55	0.629	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.21	2.42	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.55	0.482	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.55	0.846	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.55	0.676	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_24
 Sample Amount : 515.01 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:25
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	1.55	0.357	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.55	0.419	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.55	0.839	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.55	0.714	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.55	0.582	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.55	0.412	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.21	0.870	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.21	0.979	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.55	0.590	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.21	1.28	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.21	1.28	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.55	0.676	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.55	0.714	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.5	3.65	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_24
 Sample Amount : 515.01 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:25
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	15.5	1.90	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.11	0.443	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.11	0.412	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.11	0.342	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.11	1.83	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.77	2.56	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.8	9.09	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.8	6.13	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_25
 Sample Amount : 524.6 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:37
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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)	9.24	6.10	0.976	
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.05	0.816	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.52	0.511	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.10	1.59	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.52	0.450	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.52	0.267	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	0.343	1.52	0.305	J
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.52	0.366	U
335-67-1	Perfluorooctanoic Acid (PFOA)	3.29	1.52	0.663	
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.10	2.06	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.52	0.412	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.52	0.480	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.52	0.694	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.52	0.618	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.10	2.37	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.52	0.473	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.52	0.831	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.52	0.663	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_25
 Sample Amount : 524.6 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:37
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	1.52	0.351	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.52	0.412	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.52	0.823	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.52	0.701	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.52	0.572	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.52	0.404	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.10	0.854	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.10	0.961	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.52	0.579	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.10	1.26	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.10	1.26	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.52	0.663	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.52	0.701	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	15.2	3.58	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_25
 Sample Amount : 524.6 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:37
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	15.2	1.87	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.05	0.435	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.05	0.404	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEEESA)	ND	3.05	0.335	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.05	1.80	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.62	2.52	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	38.1	8.92	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	38.1	6.02	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_26
 Sample Amount : 501.15 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:50
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	6.38	1.02	U
2706-90-3	Perfluoropentanoic Acid (PFPeA)	ND	3.19	0.854	U
375-73-5	Perfluorobutanesulfonic Acid (PFBS)	ND	1.60	0.535	U
757124-72-4	1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	6.38	1.67	U
307-24-4	Perfluorohexanoic Acid (PFHxA)	ND	1.60	0.471	U
2706-91-4	Perfluoropentanesulfonic Acid (PFPeS)	ND	1.60	0.279	U
375-85-9	Perfluoroheptanoic Acid (PFHpA)	ND	1.60	0.319	U
355-46-4	Perfluorohexanesulfonic Acid (PFHxS)	ND	1.60	0.383	U
335-67-1	Perfluorooctanoic Acid (PFOA)	ND	1.60	0.694	U
27619-97-2	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	6.38	2.16	U
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND	1.60	0.431	U
375-95-1	Perfluorononanoic Acid (PFNA)	ND	1.60	0.503	U
1763-23-1	Perfluorooctanesulfonic Acid (PFOS)	ND	1.60	0.726	U
335-76-2	Perfluorodecanoic Acid (PFDA)	ND	1.60	0.646	U
39108-34-4	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.38	2.48	U
68259-12-1	Perfluorononanesulfonic Acid (PFNS)	ND	1.60	0.495	U
2355-31-9	N-Methyl Perfluorooctanesulfonamidoaceti c Acid (NMeFOSAA)	ND	1.60	0.870	U
2058-94-8	Perfluoroundecanoic Acid (PFUnA)	ND	1.60	0.694	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_26
 Sample Amount : 501.15 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:50
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	1.60	0.367	U
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND	1.60	0.431	U
2991-50-6	N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	1.60	0.862	U
307-55-1	Perfluorododecanoic Acid (PFDoA)	ND	1.60	0.734	U
72629-94-8	Perfluorotridecanoic Acid (PFTrDA)	ND	1.60	0.599	U
376-06-7	Perfluorotetradecanoic Acid (PFTeDA)	ND	1.60	0.423	U
13252-13-6	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	ND	6.38	0.894	U
919005-14-4	4,8-Dioxa-3h-Perfluorononanoic Acid (ADONA)	ND	6.38	1.00	U
79780-39-5	Perfluorododecanesulfonic Acid (PFDoS)	ND	1.60	0.607	U
756426-58-1	9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid (9Cl-PF3ONS)	ND	6.38	1.32	U
763051-92-9	11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid (11Cl-PF3OUdS)	ND	6.38	1.32	U
31506-32-8	N-Methyl Perfluorooctane Sulfonamide (NMeFOSA)	ND	1.60	0.694	U
4151-50-2	N-Ethyl Perfluorooctane Sulfonamide (NEtFOSA)	ND	1.60	0.734	U
24448-09-7	N-Methyl Perfluorooctanesulfonamido Ethanol (NMeFOSE)	ND	16.0	3.75	U



Results Summary

Form 1

Perfluorinated Alkyl Acids by EPA 1633

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 144,1633
 Lab File ID : SCI05_240918_26
 Sample Amount : 501.15 g
 Extraction Method : EPA 1633
 Extract Volume : 4000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 09/18/24 10:50
 Date Extracted : 09/17/24
 Dilution Factor : 1
 Analyst : AC
 Instrument ID : LCMS05
 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	16.0	1.96	U
377-73-1	Perfluoro-3-Methoxypropanoic Acid (PFMPA)	ND	3.19	0.455	U
863090-89-5	Perfluoro-4-Methoxybutanoic Acid (PFMBA)	ND	3.19	0.423	U
113507-82-7	Perfluoro(2-Ethoxyethane)Sulfonic Acid (PFEESA)	ND	3.19	0.351	U
151772-58-6	Nonafluoro-3,6-Dioxaheptanoic Acid (NFDHA)	ND	3.19	1.88	U
356-02-5	3-Perfluoropropyl Propanoic Acid (3: 3FTCA)	ND	7.98	2.63	U
914637-49-3	2H,2H,3H,3H-Perfluorooctanoic Acid (5: 3FTCA)	ND	39.9	9.34	U
812-70-4	3-Perfluoroheptyl Propanoic Acid (7: 3FTCA)	ND	39.9	6.30	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 11:10
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:07
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.0145	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	0.01808	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	4.30	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00047	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	1.37	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.01384	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.68	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	6.58	0.100	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 : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:11
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

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	0.01941	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	22.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00030	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	0.00052	0.00050	0.00016	
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	5.24	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	4.660	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	13.9	0.100	0.0293	J
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 : L2447890-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 14:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 12:39
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.00342	0.0100	0.00327	J
7440-36-0	Antimony, Dissolved	0.00073	0.00400	0.00042	J
7440-38-2	Arsenic, Dissolved	ND	0.00050	0.00016	U
7440-39-3	Barium, Dissolved	0.04329	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	42.0	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00022	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	9.94	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.08884	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	4.08	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	12.9	0.100	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 : L2447890-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 17:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:16
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

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	0.04125	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	67.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00024	0.00100	0.00017	J
7440-48-4	Cobalt, Dissolved	ND	0.00050	0.00016	U
7440-50-8	Copper, Dissolved	0.00053	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	15.9	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00915	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	4.79	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	13.9	0.100	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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.00365	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	0.01662	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	0.00069	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	5.98	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.02911	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	0.00056	0.00200	0.00055	J
7440-09-7	Potassium, Dissolved	1.81	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	10.2	0.100	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 : L2447890-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:20
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:31
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	ND	0.0100	0.00327	U
7440-38-2	Arsenic, Dissolved	0.00019	0.00050	0.00016	J
7440-39-3	Barium, Dissolved	0.01855	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	20.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
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	6.57	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00654	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.15	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	14.2	0.100	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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 18:22
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-36-0	Antimony, Dissolved	ND	0.00400	0.00042	U



Form 1 METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 10:50
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:35
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

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	0.02228	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	17.9	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00073	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	8.70	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00061	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	1.93	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	13.9	0.100	0.0293	J
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 : L2447890-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:05
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:40
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

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	0.02906	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	32.1	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00105	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	0.0238	0.0500	0.0191	J
7439-92-1	Lead, Dissolved	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Dissolved	10.7	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00100	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	0.00214	0.00200	0.00055	
7440-09-7	Potassium, Dissolved	1.92	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	6.53	0.100	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 : L2447890-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 14:35
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:44
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

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	0.02566	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	31.6	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00022	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	5.92	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00116	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.93	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	0.100	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 : L2447890-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 18:08
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

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	0.02940	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	39.6	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00019	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	8.14	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00085	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	3.69	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	13.6	0.100	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 : L2447890-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 18:12
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.00716	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	0.04681	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	17.4	0.100	0.0394	
7440-47-3	Chromium, Dissolved	0.00110	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	2.68	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00291	0.00100	0.00044	J
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.40	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	8.19	0.100	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 : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 18:17
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.0144	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	0.04615	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	0.00141	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	2.51	0.0700	0.0242	
7439-96-5	Manganese, Dissolved	0.00295	0.00100	0.00044	
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	2.34	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	7.65	0.100	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 : L2447890-13
Client ID : FIELD BLANK
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:59
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Dissolved	0.00333	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	ND	0.00050	0.00017	U
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	0.0599	0.100	0.0394	J
7440-47-3	Chromium, Dissolved	ND	0.00100	0.00017	U
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	ND	0.0700	0.0242	U
7439-96-5	Manganese, Dissolved	ND	0.00100	0.00044	U
7440-02-0	Nickel, Dissolved	ND	0.00200	0.00055	U
7440-09-7	Potassium, Dissolved	ND	0.100	0.0309	U
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	0.250	0.100	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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 20:47
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.01997	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	4.97	0.100	0.0394	
7440-47-3	Chromium, Total	0.00058	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	1.42	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	1.88	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
7440-28-0	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 : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 20:51
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.02039	0.00050	0.00017	
7440-41-7	Beryllium, Total	ND	0.00050	0.00010	U
7440-43-9	Cadmium, Total	0.00007	0.00020	0.00005	J
7440-70-2	Calcium, Total	24.2	0.100	0.0394	
7440-47-3	Chromium, Total	0.00374	0.00100	0.00017	
7440-48-4	Cobalt, Total	0.00076	0.00050	0.00016	
7440-50-8	Copper, Total	0.00175	0.00100	0.00038	
7439-89-6	Iron, Total	0.0997	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	5.18	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00646	0.00200	0.00055	
7440-09-7	Potassium, Total	3.13	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
7440-28-0	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 : L2447890-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 14:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 20:20
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-36-0	Antimony, Total	0.00057	0.00400	0.00042	J
7440-38-2	Arsenic, Total	ND	0.00050	0.00016	U
7440-39-3	Barium, Total	0.04484	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	43.3	0.100	0.0394	
7440-47-3	Chromium, Total	0.00043	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00056	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0228	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	10.2	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	4.23	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
7440-28-0	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 : L2447890-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 17:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 21:09
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7440-36-0	Antimony, Total	ND	0.00400	0.00042	U
7440-38-2	Arsenic, Total	0.00017	0.00050	0.00016	J
7440-39-3	Barium, Total	0.04305	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	75.5	0.100	0.0394	
7440-47-3	Chromium, Total	0.00099	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00066	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0301	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	16.6	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	5.21	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
7440-28-0	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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:14
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.01787	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	
7440-47-3	Chromium, Total	0.00060	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	5.79	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	1.73	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
7440-28-0	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 : L2447890-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:20
Date Received : 08/21/24
Date Analyzed : 08/28/24 21:18
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.01966	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	23.8	0.100	0.0394	
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	0.00059	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0232	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	6.66	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00086	0.00200	0.00055	J
7440-09-7	Potassium, Total	2.33	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
7440-28-0	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 : L2447890-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 10:50
Date Received : 08/21/24
Date Analyzed : 08/28/24 21:23
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.02316	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	18.3	0.100	0.0394	
7440-47-3	Chromium, Total	0.00071	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	8.29	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.10	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
7440-28-0	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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:27
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.03121	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	35.1	0.100	0.0394	
7440-47-3	Chromium, Total	0.00640	0.00100	0.00017	
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00048	0.00100	0.00038	J
7439-89-6	Iron, Total	0.0579	0.0500	0.0191	
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	11.4	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00419	0.00200	0.00055	
7440-09-7	Potassium, Total	2.10	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
7440-28-0	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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:32
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.02695	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	33.0	0.100	0.0394	
7440-47-3	Chromium, Total	0.00022	0.00100	0.00017	J
7440-48-4	Cobalt, Total	ND	0.00050	0.00016	U
7440-50-8	Copper, Total	0.00047	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	6.29	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	3.04	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
7440-28-0	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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:36
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.02852	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	39.5	0.100	0.0394	
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	ND	0.00100	0.00038	U
7439-89-6	Iron, Total	0.0265	0.0500	0.0191	J
7439-92-1	Lead, Total	ND	0.00100	0.00034	U
7439-95-4	Magnesium, Total	8.24	0.0700	0.0242	
7440-02-0	Nickel, Total	0.00190	0.00200	0.00055	J
7440-09-7	Potassium, Total	3.64	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
7440-28-0	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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:41
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.04752	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	17.6	0.100	0.0394	
7440-47-3	Chromium, Total	0.00140	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	2.65	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.50	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
7440-28-0	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 : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:45
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.04662	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	16.6	0.100	0.0394	
7440-47-3	Chromium, Total	0.00096	0.00100	0.00017	J 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	2.57	0.0700	0.0242	
7440-02-0	Nickel, Total	ND	0.00200	0.00055	U
7440-09-7	Potassium, Total	2.34	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
7440-28-0	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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1964735.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 21:05
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.00020	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
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
7440-28-0	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 : L2447890-14
Client ID : EQUIPMENT BLANK
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1964735.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 21:59
Dilution Factor : 1
Analyst : EJJ
Instrument ID : ICPMSQ2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
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	0.00028	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
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
7440-28-0	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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:20
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0176	0.0100	0.00327	
7439-96-5	Manganese, Total	0.01458	0.00100	0.00044	
7440-23-5	Sodium, Total	6.36	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:25
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0238	0.0100	0.00327	
7439-96-5	Manganese, Total	4.600	0.00100	0.00044	
7440-23-5	Sodium, Total	12.3	0.100	0.0293	J



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 13:17
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0129	0.0100	0.00327	
7439-96-5	Manganese, Total	0.09071	0.00100	0.00044	
7440-23-5	Sodium, Total	12.5	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:29
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0173	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00548	0.00100	0.00044	J
7440-23-5	Sodium, Total	13.7	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:34
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00437	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.03119	0.00100	0.00044	
7440-23-5	Sodium, Total	9.55	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:39
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0239	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00797	0.00100	0.00044	
7440-23-5	Sodium, Total	13.4	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:43
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00362	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.00062	0.00100	0.00044	J
7440-23-5	Sodium, Total	12.2	0.100	0.0293	J



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:48
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0234	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00498	0.00100	0.00044	
7440-23-5	Sodium, Total	6.65	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:53
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00678	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.00114	0.00100	0.00044	
7440-23-5	Sodium, Total	10.5	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 14:57
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0192	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00208	0.00100	0.00044	
7440-23-5	Sodium, Total	12.6	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 15:28
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.0114	0.0100	0.00327	
7439-96-5	Manganese, Total	0.00260	0.00100	0.00044	J
7440-23-5	Sodium, Total	7.37	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,6020B
Lab File ID : WG1965312.pdf
Sample Amount : 50ml
Digestion Method : EPA 3005A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/29/24 15:33
Dilution Factor : 1
Analyst : EJF
Instrument ID : ICPMSQ
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	0.00822	0.0100	0.00327	J
7439-96-5	Manganese, Total	0.00258	0.00100	0.00044	
7440-23-5	Sodium, Total	7.41	0.100	0.0293	



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 15:24
 Dilution Factor : 1
 Analyst : EJF
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-23-5	Sodium, Total	ND	0.100	0.0293	U



Form 1

METALS

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-14
 Client ID : EQUIPMENT BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,6020B
 Lab File ID : WG1965312.pdf
 Sample Amount : 50ml
 Digestion Method : EPA 3005A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 15:38
 Dilution Factor : 1
 Analyst : EJJ
 Instrument ID : ICPMSQ
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7429-90-5	Aluminum, Total	ND	0.0100	0.00327	U
7439-96-5	Manganese, Total	ND	0.00100	0.00044	U
7440-23-5	Sodium, Total	ND	0.100	0.0293	U



Form 1

METALS

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 11:10
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:05
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:09
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 14:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 10:28
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 17:55
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:12
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:15
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-06
Client ID : MW-7B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:20
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:19
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 11:22
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:05
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:25
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 14:35
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:29
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 11:32
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:35
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 11:57
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 12:00
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 22:28
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 22:31
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 22:15
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 22:35
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 22:38
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 22:52
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-07
Client ID : MW-7C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 10:50
Date Received : 08/21/24
Date Analyzed : 08/28/24 22:55
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:05
Date Received : 08/21/24
Date Analyzed : 08/28/24 22:59
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 23:02
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 23:05
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-11
Client ID : MW-9B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 23:08
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/28/24 23:12
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-13
 Client ID : FIELD BLANK
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 1,7470A
 Lab File ID : WG1964786.pdf
 Sample Amount : 25ml
 Digestion Method : EPA 7470A

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:30
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 23:15
 Dilution Factor : 1
 Analyst : JWN
 Instrument ID : NIC4
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-14
Client ID : EQUIPMENT BLANK
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 1,7470A
Lab File ID : WG1964786.pdf
Sample Amount : 25ml
Digestion Method : EPA 7470A

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 09:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 23:18
Dilution Factor : 1
Analyst : JWN
Instrument ID : NIC4
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.34	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 107,-
Lab File ID : WG1965157.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:20
Dilution Factor : 1
Analyst : JRO
Instrument ID :
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.38	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.55	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.96	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 107,-
Lab File ID : WG1965157.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 17:20
Dilution Factor : 1
Analyst : JRO
Instrument ID :
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.63	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	ND	0.30	0.30	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.84	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	2.6	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	1.8	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965157.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 17:20
 Dilution Factor : 1
 Analyst : JRO
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	0.61	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965328.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 05:45
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	5.1	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 107,-
 Lab File ID : WG1965328.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 05:45
 Dilution Factor : 1
 Analyst : MRM
 Instrument ID :
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Total Nitrogen	5.1	0.30	0.30	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320240827-G
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 11:10
Date Received : 08/21/24
Date Analyzed : 08/27/24 14:40
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.343	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-G
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:44
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.378	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-G
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:45
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.549	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-G
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:46
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.961	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320240827-G
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/27/24 14:47
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.153	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-G
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:47
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.118	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-G
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:48
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.081	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-G
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:49
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

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 : L2447890-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320240827-G
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 14:35
Date Received : 08/21/24
Date Analyzed : 08/27/24 14:50
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.171	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-10
Client ID : MW-8C2
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500NH3-H
Lab File ID : NH320240827-F
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:40
Date Received : 08/21/24
Date Analyzed : 08/27/24 14:05
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.447	0.300	0.066	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-F
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:08
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Total Kjeldahl	0.076	0.300	0.066	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500NH3-H
 Lab File ID : NH320240827-F
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 14:09
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/26/24

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 : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:22
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.025	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320240828-B
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/28/24 09:23
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT5
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.300	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:24
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.492	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:25
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.913	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320240828-B
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/28/24 09:26
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT5
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.059	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:27
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.063	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:31
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:32
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.025	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320240828-B
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 14:35
Date Received : 08/21/24
Date Analyzed : 08/28/24 09:33
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT5
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.232	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240828-B
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/28/24 09:34
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT5
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.132	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,350.1
 Lab File ID : NH320240829-E
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/29/24 12:14
 Dilution Factor : 1
 Analyst : KEP
 Instrument ID : LACHAT
 %Solids : N/A
 Date Digested : 08/28/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.217	0.075	0.024	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 44,350.1
Lab File ID : NH320240829-E
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/29/24 12:15
Dilution Factor : 1
Analyst : KEP
Instrument ID : LACHAT
%Solids : N/A
Date Digested : 08/28/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7664-41-7	Nitrogen, Ammonia	0.048	0.075	0.024	J J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:08
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.077	0.10	0.046	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:14
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:18
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:19
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %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 : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:20
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.63	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:21
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:22
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.84	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:23
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	2.6	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:28
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	1.8	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:29
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	0.16	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:30
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	5.1	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,353.2
 Lab File ID : NO3240827-B1
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 06:31
 Dilution Factor : 1
 Analyst : KAF
 Instrument ID : FIA1
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Nitrogen, Nitrate/Nitrite	5.1	0.10	0.046	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	50.	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	260	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 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 : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	74.	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2540C
 Lab File ID : WG1964162.pdf
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 03:24
 Dilution Factor : 1.3
 Analyst : DEW
 Instrument ID : BALANCE#22
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
NONE	Solids, Total Dissolved	81.	13	4.0	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-01
Client ID : MW-3A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 11:10
Date Received : 08/21/24
Date Analyzed : 08/26/24 11:55
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	19.1	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 240826_csv.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 11:56
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	69.9	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 14:55
Date Received : 08/21/24
Date Analyzed : 08/26/24 11:59
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	113.	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 17:55
Date Received : 08/21/24
Date Analyzed : 08/26/24 12:02
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	217.	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/26/24 12:08
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	47.2	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 240826_csv.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 12:10
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	63.8	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 240826_csv.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 12:13
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	43.7	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-08
Client ID : MW-8A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 13:05
Date Received : 08/21/24
Date Analyzed : 08/26/24 12:15
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	80.0	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-09
Client ID : MW-8B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 14:35
Date Received : 08/21/24
Date Analyzed : 08/26/24 12:17
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	66.8	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 240826_csv.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 12:20
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	98.1	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,2320B
 Lab File ID : 240826_csv.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 12:23
 Dilution Factor : 1
 Analyst : MKT
 Instrument ID : TITR5
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg CaCO ₃ /L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	12.1	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-12
Client ID : DUP
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,2320B
Lab File ID : 240826_csv.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/21/24 00:00
Date Received : 08/21/24
Date Analyzed : 08/26/24 12:24
Dilution Factor : 1
Analyst : MKT
Instrument ID : TITR5
%Solids : N/A
Date Digested :

CAS NO.	Parameter	mg CaCO3/L			Qualifier
		Results	RL	MDL	
471-34-1	Alkalinity, Total	11.3	2.00	NA	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS082724-WG1964457.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:26
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.015	0.031	0.012	J



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-02
Client ID : MW-6A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS082724-WG1964457.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:40
Date Received : 08/21/24
Date Analyzed : 08/27/24 17:31
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.083	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-03
Client ID : MW-6B
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS082724-WG1964457.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 14:55
Date Received : 08/21/24
Date Analyzed : 08/27/24 17:32
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-04
Client ID : MW-6C
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS082724-WG1964457.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 17:55
Date Received : 08/21/24
Date Analyzed : 08/27/24 17:32
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.058	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
Project Name : RANCO MINE
Lab ID : L2447890-05
Client ID : MW-7A
Sample Location : MANORVILLE, NY
Sample Matrix : WATER
Analytical Method : 121,4500P-E(M)
Lab File ID : PHOS082724-WG1964457.csv
Sample Amount :
Digestion Method :

Lab Number : L2447890
Project Number : 12123
Date Collected : 08/20/24 16:30
Date Received : 08/21/24
Date Analyzed : 08/27/24 17:33
Dilution Factor : 1
Analyst : MEF
Instrument ID : SEAL2
%Solids : N/A
Date Digested : 08/27/24

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 : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS082724-WG1964457.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:34
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.083	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS082724-WG1964457.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:35
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.034	0.031	0.012	



Form 1

WETCHEM

Client	: Alpha Geoscience	Lab Number	: L2447890
Project Name	: RANCO MINE	Project Number	: 12123
Lab ID	: L2447890-08	Date Collected	: 08/21/24 13:05
Client ID	: MW-8A	Date Received	: 08/21/24
Sample Location	: MANORVILLE, NY	Date Analyzed	: 08/27/24 17:36
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 121,4500P-E(M)	Analyst	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	Instrument ID	: SEAL2
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.022	0.031	0.012	J



Form 1

WETCHEM

Client	: Alpha Geoscience	Lab Number	: L2447890
Project Name	: RANCO MINE	Project Number	: 12123
Lab ID	: L2447890-09	Date Collected	: 08/21/24 14:35
Client ID	: MW-8B	Date Received	: 08/21/24
Sample Location	: MANORVILLE, NY	Date Analyzed	: 08/27/24 17:37
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 121,4500P-E(M)	Analyst	: MEF
Lab File ID	: PHOS082724-WG1964457.csv	Instrument ID	: SEAL2
Sample Amount	:	%Solids	: N/A
Digestion Method	:	Date Digested	: 08/27/24

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 : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS082724-WG1964457.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:40
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.058	0.031	0.012	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS082724-WG1964457.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:41
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	0.015	0.031	0.012	J



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 121,4500P-E(M)
 Lab File ID : PHOS082724-WG1964457.csv
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/27/24 17:42
 Dilution Factor : 1
 Analyst : MEF
 Instrument ID : SEAL2
 %Solids : N/A
 Date Digested : 08/27/24

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
7723-14-0	Phosphate, Total	ND	0.031	0.012	U



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-01
 Client ID : MW-3A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 11:10
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 20:50
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	10.7	0.500	0.083	
16984-48-8	Fluoride	0.042	0.050	0.037	J
14808-79-8	Sulfate	5.37	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-02
 Client ID : MW-6A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:40
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 21:02
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.4	0.500	0.083	
16984-48-8	Fluoride	0.067	0.050	0.037	
14808-79-8	Sulfate	14.7	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-03
 Client ID : MW-6B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 14:55
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 21:14
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.057	0.050	0.013	
16887-00-6	Chloride	21.9	0.500	0.083	
16984-48-8	Fluoride	0.069	0.050	0.037	
14808-79-8	Sulfate	23.2	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-04
 Client ID : MW-6C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 17:55
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 21:26
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.101	0.050	0.013	
16887-00-6	Chloride	21.0	0.500	0.083	
16984-48-8	Fluoride	0.090	0.050	0.037	
14808-79-8	Sulfate	14.6	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-05
 Client ID : MW-7A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/20/24 16:30
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 21:38
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.043	0.050	0.013	J
16887-00-6	Chloride	13.1	0.500	0.083	
16984-48-8	Fluoride	0.056	0.050	0.037	
14808-79-8	Sulfate	15.5	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-06
 Client ID : MW-7B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:20
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 22:27
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.5	0.500	0.083	
16984-48-8	Fluoride	0.065	0.050	0.037	
14808-79-8	Sulfate	16.6	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-07
 Client ID : MW-7C
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 10:50
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 22:39
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.2	0.500	0.083	
16984-48-8	Fluoride	0.047	0.050	0.037	J
14808-79-8	Sulfate	23.2	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-08
 Client ID : MW-8A
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:05
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 22:51
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	15.2	0.500	0.083	
16984-48-8	Fluoride	0.063	0.050	0.037	
14808-79-8	Sulfate	29.4	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-09
 Client ID : MW-8B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 14:35
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 23:03
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.0	0.500	0.083	
16984-48-8	Fluoride	0.122	0.050	0.037	
14808-79-8	Sulfate	23.9	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-10
 Client ID : MW-8C2
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 13:40
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 23:15
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	ND	0.050	0.013	U
16887-00-6	Chloride	22.1	0.500	0.083	
16984-48-8	Fluoride	0.083	0.050	0.037	
14808-79-8	Sulfate	24.3	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-11
 Client ID : MW-9B
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 09:00
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 23:27
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.072	0.050	0.013	
16887-00-6	Chloride	12.3	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	19.6	1.00	0.454	



Form 1

WETCHEM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : L2447890-12
 Client ID : DUP
 Sample Location : MANORVILLE, NY
 Sample Matrix : WATER
 Analytical Method : 44,300.0
 Lab File ID : WG1964126-127-606
 Sample Amount :
 Digestion Method :

Lab Number : L2447890
 Project Number : 12123
 Date Collected : 08/21/24 00:00
 Date Received : 08/21/24
 Date Analyzed : 08/26/24 23:39
 Dilution Factor : 1
 Analyst : AVT,
 Instrument ID : IC3
 %Solids : N/A
 Date Digested :

CAS NO.	Parameter	mg/l			Qualifier
		Results	RL	MDL	
24959-67-9	Bromide	0.072	0.050	0.013	
16887-00-6	Chloride	12.2	0.500	0.083	
16984-48-8	Fluoride	ND	0.050	0.037	U
14808-79-8	Sulfate	19.6	1.00	0.454	





ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-3A		Lab ID: 50381096001		Collected: 08/21/24 11:10		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	08/31/24 21:25				

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-6A		Lab ID: 50381096002		Collected: 08/20/24 16:40		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1			08/31/24 21:42		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-6B		Lab ID: 50381096003		Collected: 08/20/24 14:55		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	08/31/24 22:00				

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-6C		Lab ID: 50381096004		Collected: 08/20/24 17:55		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	08/31/24 22:52				

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-7A		Lab ID: 50381096005		Collected: 08/20/24 16:30		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	08/31/24 23:09				

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-7B		Lab ID: 50381096006		Collected: 08/21/24 09:20		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	09/01/24 00:01				

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-7C		Lab ID: 50381096007		Collected: 08/21/24 10:50		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	09/01/24 00:18				

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-8A		Lab ID: 50381096008		Collected: 08/21/24 13:05		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 00:35			

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-8B		Lab ID: 50381096009		Collected: 08/21/24 14:35		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1			09/01/24 00:52		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: MW-8C2		Lab ID: 50381096010		Collected: 08/21/24 13:40		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1			09/01/24 01:10		

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project L2447890

Pace Project No.: 50381096

Sample: MW-9B		Lab ID: 50381096011		Collected: 08/21/24 09:00		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1	09/01/24 01:27				

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project L2447890
Pace Project No.: 50381096

Sample: DUP		Lab ID: 50381096012		Collected: 08/21/24 00:00		Received: 08/27/24 09:05		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
9056 Iodide by IC		Analytical Method: EPA 9056 Pace Analytical Services - Indianapolis							
Iodide	ND	mg/L	0.50	1		09/01/24 01:44			

REPORT OF LABORATORY ANALYSIS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-3A

Sampled: 8/21/2024 11:10

Sample ID: 24H3575-01

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		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6A

Sampled: 8/20/2024 16:40

Sample ID: 24H3575-02

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	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6B

Sampled: 8/20/2024 14:55

Sample ID: 24H3575-03

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	8/27/24	8/29/24 9:30	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-6C

Sampled: 8/20/2024 17:55

Sample ID: 24H3575-04

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	8/27/24	8/29/24 9:30	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7A

Sampled: 8/20/2024 16:30

Sample ID: 24H3575-05

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	8/27/24	8/29/24 9:30	DET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7B

Sampled: 8/21/2024 09:20

Sample ID: 24H3575-06

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		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-7C

Sampled: 8/21/2024 10:50

Sample ID: 24H3575-07

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		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8A

Sampled: 8/21/2024 13:05

Sample ID: 24H3575-08

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		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8B

Sampled: 8/21/2024 14:35

Sample ID: 24H3575-09

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		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-8C2

Sampled: 8/21/2024 13:40

Sample ID: 24H3575-10

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		SM21-23 4500S-F	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: MW-9B

Sampled: 8/21/2024 09:00

Sample ID: 24H3575-11

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	8/28/24	8/28/24 9:15	EC

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: L2447890

Sample Description:

Work Order: 24H3575

Date Received: 8/26/2024

Field Sample #: DUP

Sampled: 8/21/2024 00:00

Sample ID: 24H3575-12

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	8/28/24	8/28/24 9:15	EC

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	U		0.0854	1.00	1	09/12/2024 18:07	WG2356031

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Su

⁸Gl

⁹Al

¹⁰Sc

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	U		0.0854	1.00	1	09/12/2024 18:10	WG2356031

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Su

⁸Gl

⁹Al

¹⁰Sc

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	0.382	J	0.0854	1.00	1	09/12/2024 17:29	WG2356031

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Su

8Gl

9Al

10Sc

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	U		0.0854	1.00	1	09/12/2024 18:13	WG2356031

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Su

8Gl

9Al

10Sc

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	U		0.0854	1.00	1	09/12/2024 18:17	WG2356031

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Su

⁸Gl

⁹Al

¹⁰Sc

Metals (ICPMS) by Method 200.8

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Uranium	U		0.0854	1.00	1	09/12/2024 18:20	WG2356031

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Su

8Gl

9Al

10Sc

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, and 1 Trip Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 RRFs for 10 compounds (highlighted yellow on attached Form 6) were below the method minimums, but not below 0.010 for VOA122 on 07-29-24. The average RRFs for 12 compounds (highlighted yellow on attached Form 6) were below the method minimums, but not below 0.010 for VOA130 on 08-16-24. 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 10 compounds (highlighted yellow on attached Form 7) were below the method minimums, but not below 0.010 on 08-26-24 (V30240826A01). The average RRFs for 11 compounds (highlighted yellow on attached Form 7) were below the method minimums, but not below 0.010 on 08-26-24 (V22240826A01). The average RRFs for 10 compounds (highlighted yellow on attached Form 7) were below the method minimums, but not below 0.010 on 08-27-24 (V30240827A01). The %D for 1,1,2,2-tetrachloroethane was above the method maximum on 08-26-24 (V30240826A01). The %Ds for 6 compounds (highlighted yellow on attached Form 7) were above the method maximum on 08-26-24 (V22240826A01). The %Ds for acetone and 1,1,2,2-tetrachloroethane were above the method maximum on 08-27-24 (V30240827A01). 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 RRF for 1,4-dioxane was below the allowable minimum (0.001) on 08-26-24 (V22240826A01). Positive results for 1,4-dioxane should be considered estimated and “not detected” results rejected, unusable in associated samples.

The %D for 1,1,2,2-tetrachloroethane was above the allowable maximum (20%) on 08-26-24 (V30240826A01). The %Ds for 6 compounds (highlighted yellow on attached Form 7) were above the allowable maximum (20%) on 08-26-24 (V22240826A01). The %Ds for acetone and 1,1,2,2-tetrachloroethane were above the allowable maximum (20%) on 08-27-24 (V30240827A01). 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 acetone (2.3 ug/L). Positive results for acetone that are less than 10 times the highest blank level in associated samples.

Surrogate Recovery: The surrogate recoveries were within control limits for the ground water samples, trip 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 2 of 2 percent recoveries (%Rs) for acetone and 1 of 2 %Rs for 1,1,2,2-tetrachloroethane were above QC limits for aqueous MS/MSD sample MW-6B. Sample MW-6B reported these compounds as “not detected”; therefore, no action is taken.

Laboratory Control Sample: The percent recoveries (%Rs) for target compounds were within QC limits, but the relative percent differences (RPDs) for 10 compounds (highlighted yellow on attached Form 3) were above the allowable maximum for aqueous samples WG1964251-3/4. The %Rs for target compounds were within QC limits, but the RPD for chloroethane was above the allowable maximum for aqueous samples WG1964387-3/4. The RPDs for 4-methyl-2-pentanone and 2-hexanone were above the allowable maximum for aqueous samples WG1964633-3/4. Positive results for these compounds acetate should be considered estimated (J) in the associated aqueous samples.

One of two %Rs for 1,1,2,2-tetrachloroethane and 2-hexanone were above QC limits for aqueous samples WG1964633-3/4. Positive results for these compounds acetate should be considered estimated, biased high (J+) in the associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/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 compound and 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 : **WG1964251-3** Analysis Date : 08/26/24 06:30 File ID : V30240826A01
 LCSD Sample ID : **WG1964251-4** Analysis Date : 08/26/24 06:52 File ID : V30240826A02

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	10	100	10	8.9	89	12	70-130	20
1,1-Dichloroethane	10	11	110	10	9.1	91	19	70-130	20
Chloroform	10	11	110	10	8.9	89	21 Q	70-130	20
Carbon tetrachloride	10	9.2	92	10	7.5	75	20	63-132	20
1,2-Dichloropropane	10	11	110	10	9.1	91	19	70-130	20
Dibromochloromethane	10	11	110	10	9.0	90	20	63-130	20
1,1,2-Trichloroethane	10	12	120	10	10	100	18	70-130	20
Tetrachloroethene	10	11	110	10	9.0	90	20	70-130	20
Chlorobenzene	10	11	110	10	9.4	94	16	75-130	20
Trichlorofluoromethane	10	10	100	10	8.5	85	16	62-150	20
1,2-Dichloroethane	10	10	100	10	8.8	88	13	70-130	20
1,1,1-Trichloroethane	10	9.7	97	10	7.7	77	23 Q	67-130	20
Bromodichloromethane	10	10	100	10	8.4	84	17	67-130	20
trans-1,3-Dichloropropene	10	11	110	10	9.3	93	17	70-130	20
cis-1,3-Dichloropropene	10	10	100	10	8.6	86	15	70-130	20
Bromoform	10	11	110	10	9.4	94	16	54-136	20
1,1,2,2-Tetrachloroethane	10	12	120	10	11	110	9	67-130	20
Benzene	10	11	110	10	9.0	90	20	70-130	20
Toluene	10	12	120	10	9.8	98	20	70-130	20
Ethylbenzene	10	11	110	10	9.5	95	15	70-130	20
Chloromethane	10	9.2	92	10	7.6	76	19	64-130	20
Bromomethane	10	8.8	88	10	7.6	76	15	39-139	20
Vinyl chloride	10	11	110	10	9.0	90	20	55-140	20
Chloroethane	10	11	110	10	9.3	93	17	55-138	20
1,1-Dichloroethene	10	9.9	99	10	8.1	81	20	61-145	20
trans-1,2-Dichloroethene	10	11	110	10	8.6	86	24 Q	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964251-3** Analysis Date : 08/26/24 06:30 File ID : V30240826A01
 LCSD Sample ID : **WG1964251-4** Analysis Date : 08/26/24 06:52 File ID : V30240826A02

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	8.4	84	17	70-130	20
1,2-Dichlorobenzene	10	11	110	10	9.3	93	17	70-130	20
1,3-Dichlorobenzene	10	11	110	10	9.3	93	17	70-130	20
1,4-Dichlorobenzene	10	11	110	10	9.3	93	17	70-130	20
Methyl tert butyl ether	10	9.4	94	10	8.2	82	14	63-130	20
p/m-Xylene	20	22	110	20	18	90	20	70-130	20
o-Xylene	20	22	110	20	18	90	20	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	8.7	87	14	70-130	20
Styrene	20	23	115	20	19	95	19	70-130	20
Dichlorodifluoromethane	10	8.4	84	10	6.9	69	20	36-147	20
Acetone	10	12	120	10	8.9	89	30 Q	58-148	20
Carbon disulfide	10	11	110	10	8.2	82	29 Q	51-130	20
2-Butanone	10	8.9	89	10	7.8	78	13	63-138	20
4-Methyl-2-pentanone	10	10	100	10	9.8	98	2	59-130	20
2-Hexanone	10	11	110	10	9.8	98	12	57-130	20
Bromochloromethane	10	9.8	98	10	8.4	84	15	70-130	20
1,2-Dibromoethane	10	11	110	10	9.3	93	17	70-130	20
1,2-Dibromo-3-chloropropane	10	12	120	10	9.9	99	19	41-144	20
Isopropylbenzene	10	12	120	10	9.5	95	23 Q	70-130	20
1,2,3-Trichlorobenzene	10	11	110	10	9.0	90	20	70-130	20
1,2,4-Trichlorobenzene	10	11	110	10	8.9	89	21 Q	70-130	20
Methyl Acetate	10	10	100	10	8.8	88	13	70-130	20
Cyclohexane	10	10	100	10	8.0	80	22 Q	70-130	20
1,4-Dioxane	500	560	112	500	480	96	15	56-162	20
Freon-113	10	9.9	99	10	7.8	78	24 Q	70-130	20
Methyl cyclohexane	10	11	110	10	8.4	84	27 Q	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964387-3** Analysis Date : 08/26/24 08:20 File ID : V22240826A01
 LCSD Sample ID : **WG1964387-4** Analysis Date : 08/26/24 08:44 File ID : V22240826A02

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	9.6	96	10	9.0	90	6	70-130	20
1,1-Dichloroethane	10	10	100	10	9.6	96	4	70-130	20
Chloroform	10	9.6	96	10	9.4	94	2	70-130	20
Carbon tetrachloride	10	10	100	10	11	110	10	63-132	20
1,2-Dichloropropane	10	9.2	92	10	9.7	97	5	70-130	20
Dibromochloromethane	10	8.5	85	10	8.8	88	3	63-130	20
1,1,2-Trichloroethane	10	8.2	82	10	8.6	86	5	70-130	20
Tetrachloroethene	10	11	110	10	11	110	0	70-130	20
Chlorobenzene	10	9.8	98	10	9.7	97	1	75-130	20
Trichlorofluoromethane	10	11	110	10	10	100	10	62-150	20
1,2-Dichloroethane	10	9.5	95	10	9.4	94	1	70-130	20
1,1,1-Trichloroethane	10	10	100	10	10	100	0	67-130	20
Bromodichloromethane	10	9.4	94	10	9.5	95	1	67-130	20
trans-1,3-Dichloropropene	10	7.6	76	10	8.0	80	5	70-130	20
cis-1,3-Dichloropropene	10	9.3	93	10	9.7	97	4	70-130	20
Bromoform	10	8.6	86	10	9.0	90	5	54-136	20
1,1,2,2-Tetrachloroethane	10	7.7	77	10	8.3	83	8	67-130	20
Benzene	10	9.0	90	10	9.9	99	10	70-130	20
Toluene	10	9.4	94	10	9.4	94	0	70-130	20
Ethylbenzene	10	9.7	97	10	9.8	98	1	70-130	20
Chloromethane	10	9.1	91	10	8.4	84	8	64-130	20
Bromomethane	10	8.9	89	10	8.0	80	11	39-139	20
Vinyl chloride	10	11	110	10	11	110	0	55-140	20
Chloroethane	10	8.8	88	10	6.7	67	27 Q	55-138	20
1,1-Dichloroethene	10	10	100	10	10	100	0	61-145	20
trans-1,2-Dichloroethene	10	10	100	10	9.8	98	2	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience Lab Number : L2447890
 Project Name : RANCO MINE Project Number : 12123
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964387-3** Analysis Date : 08/26/24 08:20 File ID : V22240826A01
 LCSD Sample ID : **WG1964387-4** Analysis Date : 08/26/24 08:44 File ID : V22240826A02

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	9.2	92	10	9.6	96	4	70-130	20
1,2-Dichlorobenzene	10	9.7	97	10	9.9	99	2	70-130	20
1,3-Dichlorobenzene	10	9.9	99	10	10	100	1	70-130	20
1,4-Dichlorobenzene	10	9.6	96	10	9.8	98	2	70-130	20
Methyl tert butyl ether	10	8.7	87	10	9.5	95	9	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	9.9	99	10	9.6	96	3	70-130	20
Styrene	20	20	100	20	20	100	0	70-130	20
Dichlorodifluoromethane	10	8.8	88	10	8.2	82	7	36-147	20
Acetone	10	8.6	86	10	8.6	86	0	58-148	20
Carbon disulfide	10	10	100	10	10	100	0	51-130	20
2-Butanone	10	8.7	87	10	8.1	81	7	63-138	20
4-Methyl-2-pentanone	10	7.4	74	10	8.0	80	8	59-130	20
2-Hexanone	10	6.8	68	10	7.4	74	8	57-130	20
Bromochloromethane	10	10	100	10	10	100	0	70-130	20
1,2-Dibromoethane	10	9.0	90	10	9.2	92	2	70-130	20
1,2-Dibromo-3-chloropropane	10	8.0	80	10	8.4	84	5	41-144	20
Isopropylbenzene	10	9.6	96	10	9.9	99	3	70-130	20
1,2,3-Trichlorobenzene	10	9.8	98	10	10	100	2	70-130	20
1,2,4-Trichlorobenzene	10	9.8	98	10	10	100	2	70-130	20
Methyl Acetate	10	7.9	79	10	8.3	83	5	70-130	20
Cyclohexane	10	10	100	10	10	100	0	70-130	20
1,4-Dioxane	500	560	112	500	540	108	4	56-162	20
Freon-113	10	11	110	10	10	100	10	70-130	20
Methyl cyclohexane	10	9.4	94	10	9.8	98	4	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964633-3** Analysis Date : 08/27/24 06:30 File ID : V30240827A01
 LCSD Sample ID : **WG1964633-4** Analysis Date : 08/27/24 06:51 File ID : V30240827A02

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	10	100	10	11	110	10	70-130	20
1,1-Dichloroethane	10	11	110	10	12	120	9	70-130	20
Chloroform	10	11	110	10	12	120	9	70-130	20
Carbon tetrachloride	10	9.5	95	10	9.6	96	1	63-132	20
1,2-Dichloropropane	10	11	110	10	11	110	0	70-130	20
Dibromochloromethane	10	10	100	10	11	110	10	63-130	20
1,1,2-Trichloroethane	10	12	120	10	13	130	8	70-130	20
Tetrachloroethene	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	10	10	100	10	11	110	10	75-130	20
Trichlorofluoromethane	10	11	110	10	12	120	9	62-150	20
1,2-Dichloroethane	10	11	110	10	12	120	9	70-130	20
1,1,1-Trichloroethane	10	9.7	97	10	10	100	3	67-130	20
Bromodichloromethane	10	10	100	10	11	110	10	67-130	20
trans-1,3-Dichloropropene	10	11	110	10	12	120	9	70-130	20
cis-1,3-Dichloropropene	10	9.8	98	10	10	100	2	70-130	20
Bromoform	10	10	100	10	12	120	18	54-136	20
1,1,2,2-Tetrachloroethane	10	12	120	10	14	140 Q	15	67-130	20
Benzene	10	10	100	10	11	110	10	70-130	20
Toluene	10	11	110	10	12	120	9	70-130	20
Ethylbenzene	10	11	110	10	11	110	0	70-130	20
Chloromethane	10	9.1	91	10	9.6	96	5	64-130	20
Bromomethane	10	9.1	91	10	10	100	9	39-139	20
Vinyl chloride	10	11	110	10	12	120	9	55-140	20
Chloroethane	10	12	120	10	12	120	0	55-138	20
1,1-Dichloroethene	10	9.8	98	10	10	100	2	61-145	20
trans-1,2-Dichloroethene	10	10	100	10	11	110	10	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964633-3** Analysis Date : 08/27/24 06:30 File ID : V30240827A01
 LCSD Sample ID : **WG1964633-4** Analysis Date : 08/27/24 06:51 File ID : V30240827A02

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	9.8	98	10	10	100	2	70-130	20
1,2-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,3-Dichlorobenzene	10	10	100	10	11	110	10	70-130	20
1,4-Dichlorobenzene	10	11	110	10	11	110	0	70-130	20
Methyl tert butyl ether	10	9.3	93	10	10	100	7	63-130	20
p/m-Xylene	20	21	105	20	22	110	5	70-130	20
o-Xylene	20	20	100	20	22	110	10	70-130	20
cis-1,2-Dichloroethene	10	9.9	99	10	11	110	11	70-130	20
Styrene	20	21	105	20	23	115	9	70-130	20
Dichlorodifluoromethane	10	8.6	86	10	9.1	91	6	36-147	20
Acetone	10	14	140	10	14	140	0	58-148	20
Carbon disulfide	10	11	110	10	11	110	0	51-130	20
2-Butanone	10	9.9	99	10	11	110	11	63-138	20
4-Methyl-2-pentanone	10	10	100	10	13	130	26 Q	59-130	20
2-Hexanone	10	11	110	10	14	140 O	24 Q	57-130	20
Bromochloromethane	10	9.6	96	10	11	110	14	70-130	20
1,2-Dibromoethane	10	11	110	10	12	120	9	70-130	20
1,2-Dibromo-3-chloropropane	10	11	110	10	13	130	17	41-144	20
Isopropylbenzene	10	11	110	10	11	110	0	70-130	20
1,2,3-Trichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,2,4-Trichlorobenzene	10	9.9	99	10	10	100	1	70-130	20
Methyl Acetate	10	11	110	10	13	130	17	70-130	20
Cyclohexane	10	10	100	10	11	110	10	70-130	20
1,4-Dioxane	500	580	116	500	660	132	13	56-162	20
Freon-113	10	10	100	10	11	110	10	70-130	20
Methyl cyclohexane	10	10	100	10	11	110	10	70-130	20



Matrix Spike Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-6B**
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1964633-6
 Matrix Spike Dup : WG1964633-7

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 09:47
 MS Analysis Date : 08/27/24 16:01
 MSD Analysis Date : 08/27/24 16:23

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			
Methylene chloride	ND	10	9.7	97	10	11	110	13	70-130	20
1,1-Dichloroethane	ND	10	11	110	10	12	120	9	70-130	20
Chloroform	ND	10	10	100	10	11	110	10	70-130	20
Carbon tetrachloride	ND	10	8.7	87	10	9.1	91	4	63-132	20
1,2-Dichloropropane	ND	10	10	100	10	11	110	10	70-130	20
Dibromochloromethane	ND	10	9.9	99	10	10	100	1	63-130	20
1,1,2-Trichloroethane	ND	10	12	120	10	12	120	0	70-130	20
Tetrachloroethene	ND	10	9.4	94	10	9.8	98	4	70-130	20
Chlorobenzene	ND	10	9.9	99	10	11	110	11	75-130	20
Trichlorofluoromethane	ND	10	12	120	10	12	120	0	62-150	20
1,2-Dichloroethane	ND	10	11	110	10	11	110	0	70-130	20
1,1,1-Trichloroethane	ND	10	9.2	92	10	9.5	95	3	67-130	20
Bromodichloromethane	ND	10	9.6	96	10	10	100	4	67-130	20
trans-1,3-Dichloropropene	ND	10	10	100	10	11	110	10	70-130	20
cis-1,3-Dichloropropene	ND	10	9.1	91	10	9.6	96	5	70-130	20
Bromoform	ND	10	10	100	10	11	110	10	54-136	20
1,1,2,2-Tetrachloroethane	ND	10	13	130	10	14	140 Q	7	67-130	20
Benzene	ND	10	10	100	10	11	110	10	70-130	20
Toluene	ND	10	11	110	10	11	110	0	70-130	20
Ethylbenzene	ND	10	10	100	10	11	110	10	70-130	20
Chloromethane	ND	10	9.0	90	10	10	100	11	64-130	20
Bromomethane	ND	10	9.6	96	10	11	110	14	39-139	20



Matrix Spike Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-6B**
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1964633-6
 Matrix Spike Dup : WG1964633-7

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 09:47
 MS Analysis Date : 08/27/24 16:01
 MSD Analysis Date : 08/27/24 16:23

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			
Vinyl chloride	ND	10	12	120	10	13	130	8	55-140	20
Chloroethane	ND	10	12	120	10	13	130	8	55-138	20
1,1-Dichloroethene	ND	10	9.6	96	10	10	100	4	61-145	20
trans-1,2-Dichloroethene	ND	10	9.6	96	10	11	110	14	70-130	20
Trichloroethene	ND	10	9.4	94	10	9.9	99	5	70-130	20
1,2-Dichlorobenzene	ND	10	9.5	95	10	10	100	5	70-130	20
1,3-Dichlorobenzene	ND	10	9.5	95	10	10	100	5	70-130	20
1,4-Dichlorobenzene	ND	10	9.5	95	10	10	100	5	70-130	20
Methyl tert butyl ether	ND	10	9.1	91	10	9.7	97	6	63-130	20
p/m-Xylene	ND	20	20	100	20	21	105	5	70-130	20
o-Xylene	ND	20	19	95	20	21	105	10	70-130	20
cis-1,2-Dichloroethene	ND	10	9.3	93	10	10	100	7	70-130	20
Styrene	ND	20	20	100	20	22	110	10	70-130	20
Dichlorodifluoromethane	ND	10	7.8	78	10	8.6	86	10	36-147	20
Acetone	ND	10	15	150 Q	10	15	150 Q	0	58-148	20
Carbon disulfide	ND	10	10	100	10	11	110	10	51-130	20
2-Butanone	ND	10	11	110	10	11	110	0	63-138	20
4-Methyl-2-pentanone	ND	10	12	120	10	12	120	0	59-130	20
2-Hexanone	ND	10	13	130	10	12	120	8	57-130	20
Bromochloromethane	ND	10	9.5	95	10	10	100	5	70-130	20
1,2-Dibromoethane	ND	10	11	110	10	11	110	0	70-130	20
1,2-Dibromo-3-chloropropane	ND	10	11	110	10	12	120	9	41-144	20



Matrix Spike Sample Summary

Form 3

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : MW-6B
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1964633-6
 Matrix Spike Dup : WG1964633-7

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 09:47
 MS Analysis Date : 08/27/24 16:01
 MSD Analysis Date : 08/27/24 16:23

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			
Isopropylbenzene	ND	10	9.7	97	10	10	100	3	70-130	20
1,2,3-Trichlorobenzene	ND	10	9.0	90	10	9.6	96	6	70-130	20
1,2,4-Trichlorobenzene	ND	10	8.4	84	10	9.3	93	10	70-130	20
Methyl Acetate	ND	10	12	120	10	12	120	0	70-130	20
Cyclohexane	ND	10	9.3J	93	10	9.6J	96	3	70-130	20
1,4-Dioxane	ND	500	670	134	500	690	138	3	56-162	20
Freon-113	ND	10	9.1	91	10	9.5	95	4	70-130	20
Methyl cyclohexane	ND	10	9.0J	90	10	9.5J	95	5	70-130	20



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA122
 Calibration dates : 07/29/24 13:23 07/29/24 17:04

Lab Number : L2447890
 Project Number : 12123
 Ical Ref : ICAL21346

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
 L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo			0.147	0.215	0.223	0.209	0.195	0.195	0.197	13.62
3) TP Chloromethane		0.252	0.295	0.303	0.277	0.253	0.239	0.225	0.263	10.94
4) TP Vinyl chloride	0.202	0.176	0.199	0.232	0.231	0.217	0.206	0.203	0.208	8.84
5) TP Bromomethane		0.070	0.076	0.075	0.079	0.088	0.095	0.102	0.084	14.11
6) TP Chloroethane		0.118	0.132	0.133	0.126	0.117	0.110	0.108	0.120	8.39
7) TP Trichlorofluor		0.144	0.179	0.257	0.263	0.252	0.238	0.239	*L	0.9987
8) TP Ethyl ether		0.067	0.069	0.073	0.070	0.071	0.070	0.068	0.070	2.76
10) TP 1,1-Dichloroet		0.110	0.126	0.152	0.154	0.146	0.139	0.139	0.138	11.23
11) TP Carbon disulfide		0.404	0.455	0.510	0.491	0.451	0.438	0.433	0.454	7.85
12) TP Freon-113			0.097	0.154	0.159	0.150	0.147	0.151	0.143	16.09
13) TP Iodomethane			0.122	0.172	0.190	0.199	0.203	0.204	0.182	17.53
14) TP Acrolein		0.018	0.024	0.025	0.025	0.025	0.025	0.024	0.024	11.30
15) TP Methylene chlo		0.237	0.204	0.191	0.173	0.164	0.159	0.156	0.183	16.00
17) TP Acetone			0.040	0.035	0.033	0.032	0.031	0.030	0.033	10.98
18) TP trans-1,2-Dich		0.148	0.169	0.177	0.166	0.160	0.157	0.155	0.162	5.98
19) TP Methyl acetate		0.103	0.089	0.085	0.084	0.083	0.081	0.077	0.086	9.89
21) TP Methyl tert butyl ether		0.254	0.268	0.317	0.328	0.328	0.339	0.333	0.309	11.02
22) TP tert-Butyl alc		0.004	0.006	0.007	0.007	0.007	0.007	0.007	0.006#	15.62
24) TP Diisopropyl ether		0.493	0.543	0.594	0.622	0.617	0.616	0.586	0.581	8.17
25) TP 1,1-Dichloroet		0.311	0.358	0.365	0.340	0.319	0.315	0.306	0.331	7.23
26) TP Halothane		0.096	0.110	0.132	0.127	0.127	0.126	0.126	0.121	10.56
27) TP Acrylonitrile		0.045	0.044	0.049	0.048	0.046	0.045	0.043	0.046	4.17
28) TP Ethyl tert-but		0.324	0.354	0.413	0.457	0.456	0.468	0.453	0.418	13.74
29) TP Vinyl acetate		0.273	0.289	0.353	0.379	0.386	0.385	0.367	0.348	13.51
30) TP cis-1,2-Dichlo		0.168	0.196	0.197	0.183	0.172	0.172	0.168	0.179#	6.96
31) TP 2,2-Dichloropr		0.174	0.196	0.224	0.220	0.211	0.211	0.212	0.207	8.20
32) TP Bromochloromet		0.084	0.092	0.093	0.084	0.081	0.080	0.078	0.085#	6.73
33) TP Cyclohexane			0.183	0.351	0.378	0.354	0.352	0.353	*L	0.9993
34) TP Chloroform		0.283	0.310	0.303	0.286	0.274	0.278	0.268	0.286#	5.37
35) TP Ethyl acetate			0.096	0.111	0.116	0.118	0.118	0.114	0.112	7.47
36) TP Carbon tetrachloride	0.179	0.145	0.171	0.233	0.236	0.228	0.228	0.231	0.206	17.40
37) TP Tetrahydrofuran			0.035	0.038	0.038	0.037	0.037	0.036	0.037	3.72
38) S Dibromofluoromethane	0.356	0.382	0.381	0.359	0.339	0.326	0.329	0.324	0.349	6.78
39) TP 1,1,1-Trichlor		0.184	0.221	0.263	0.260	0.255	0.254	0.252	0.241	11.85
41) TP 2-Butanone			0.042	0.044	0.049	0.050	0.049	0.047	0.047	6.75



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience Lab Number : L2447890
 Project Name : RANCO MINE Project Number : 12123
 Instrument ID : VOA122 Ical Ref : ICAL21346
 Calibration dates : 07/29/24 13:23 07/29/24 17:04

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
 L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
42) TP 1,1-Dichloropr	0.128	0.160	0.214	0.222	0.214	0.213	0.213	0.195	18.52	
44) TP Benzene	0.577	0.517	0.672	0.656	0.692	0.662	0.658	0.633	0.633	9.17
45) TP Tertiary-Amyl Methyl Ether	0.172	0.171	0.190	0.208	0.218	0.230	0.228	0.202	12.43	
46) S 1,2-Dichloroethane-d4	0.286	0.306	0.301	0.305	0.293	0.289	0.294	0.289	0.295	2.57
47) T 1,2-Dichloroethane-d4	0.154	0.165	0.170	0.162	0.154	0.154	0.149	0.158	4.65	
50) TP Methyl cyclohe	0.094	0.200	0.226	0.224	0.233	0.238	*L	0.9996		
51) TP Trichloroethene	0.133	0.113	0.124	0.143	0.143	0.140	0.141	0.141	0.135#	8.23
53) TP Dibromomethane	0.065	0.068	0.071	0.070	0.068	0.069	0.067	0.068	2.99	
54) TP 1,2-Dichloropr	0.115	0.131	0.154	0.152	0.147	0.147	0.143	0.141#	9.64	
56) TP 2-Chloroethyl	0.039	0.041	0.053	0.059	0.063	0.063	0.061	0.054	18.80	
57) TP Bromodichlorom	0.138	0.157	0.175	0.176	0.174	0.176	0.173	0.167#	8.74	
60) TP 1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.34	
61) TP cis-1,3-Dichloropropene	0.121	0.126	0.149	0.186	0.197	0.199	0.201	0.197	0.172#	19.89
62) I Chlorobenzene-d5	-----ISTD-----									
63) S Toluene-d8	1.265	1.258	1.267	1.262	1.281	1.288	1.295	1.276	1.274	1.03
64) TP Toluene	0.347	0.400	0.427	0.437	0.427	0.429	0.416	0.412	7.55	
65) TP 4-Methyl-2-pen	0.023	0.028	0.034	0.037	0.038	0.037	0.033	18.50		
66) TP Tetrachloroethene	0.107	0.132	0.169	0.181	0.179	0.181	0.181	0.162	18.41	
68) TP trans-1,3-Dichloropropene	0.112	0.139	0.175	0.208	0.214	0.217	0.212	*L	0.9992	
70) TP Ethyl methacry	0.090	0.124	0.141	0.147	0.149	0.144	0.133	17.01		
71) TP 1,1,2-Trichlor	0.072	0.079	0.094	0.102	0.111	0.111	0.108	0.097#	16.46	
72) TP Chlorodibromom	0.089	0.117	0.139	0.157	0.162	0.164	0.161	*L	0.9995	
73) TP 1,3-Dichloropr	0.151	0.163	0.188	0.207	0.208	0.208	0.200	0.190	12.35	
74) TP 1,2-Dibromoethane	0.077	0.089	0.107	0.119	0.123	0.123	0.120	0.108#	16.86	
76) TP 2-Hexanone	0.045	0.055	0.064	0.069	0.069	0.066	0.061	15.23		
77) TP Chlorobenzene	0.417	0.478	0.486	0.486	0.471	0.470	0.458	0.467	5.15	
78) TP Ethylbenzene	0.611	0.710	0.850	0.854	0.821	0.817	0.780	0.778	11.36	
79) TP 1,1,1,2-Tetrac	0.107	0.127	0.144	0.161	0.166	0.168	0.166	0.148	15.82	
80) TP p/m Xylene	0.220	0.271	0.332	0.334	0.323	0.322	0.310	0.302	13.84	
81) TP o Xylene	0.200	0.259	0.313	0.315	0.308	0.308	0.296	0.285	14.79	
82) TP Styrene	0.304	0.416	0.503	0.521	0.507	0.499	0.464	0.459	16.79	
83) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
84) TP Bromoform	0.110	0.118	0.137	0.162	0.172	0.176	0.179	0.150	19.06	
86) TP Isopropylbenzene	1.046	1.323	1.726	1.771	1.679	1.676	1.637	1.551	17.18	
87) S 4-Bromofluorobenzene	0.911	0.911	0.900	0.932	0.924	0.900	0.900	0.908	0.911	1.31
88) TP Bromobenzene	0.335	0.355	0.374	0.380	0.370	0.371	0.370	0.365	4.18	



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA122
 Calibration dates : 07/29/24 13:23 07/29/24 17:04

Lab Number : L2447890
 Project Number : 12123
 Ical Ref : ICAL21346

Calibration Files

L11 =V22240729A03.D L1 =V22240729A04.D L2 =V22240729A06.D L3 =V22240729A08.D L4 =V22240729A09.D
 L6 =V22240729A10.D L8 =V22240729A11.D L10 =V22240729A12.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
89) TP n-Propylbenzene	1.282	1.530	1.993	2.048	1.948	1.952	1.864	1.802	15.83	
90) TP 1,4-Dichlorobu	0.423	0.442	0.474	0.497	0.492	0.489	0.483	0.472	5.94	
91) TP 1,1,2,2-Tetrac	0.237	0.231	0.246	0.267	0.266	0.266	0.263	0.254	6.06	
92) TP 4-Ethyltoluene	1.049	1.261	1.602	1.644	1.579	1.593	1.555	1.469	15.29	
93) TP 2-Chlorotoluene	0.883	1.048	1.156	1.157	1.108	1.131	1.117	1.086	8.88	
94) TP 1,3,5-Trimethy	0.876	1.095	1.350	1.365	1.327	1.358	1.343	1.245	15.14	
95) TP 1,2,3-Trichlor	0.162	0.186	0.191	0.205	0.202	0.204	0.205	0.194	8.07	
96) TP trans-1,4-Dich	0.063	0.078	0.083	0.094	0.095	0.096	0.095	0.086	14.50	
97) TP 4-Chlorotoluene	0.906	1.071	1.192	1.204	1.158	1.166	1.146	1.121	9.26	
98) TP tert-Butylbenzene	0.714	0.853	1.187	1.236	1.189	1.202	1.183	1.081	19.23	
101) TP 1,2,4-Trimethy	0.970	1.245	1.527	1.538	1.479	1.505	1.471	1.391	15.13	
102) TP sec-Butylbenzene	0.953	1.168	1.721	1.779	1.693	1.711	1.646	*L	0.9992	
103) TP p-Isopropyltol	0.760	0.980	1.439	1.476	1.423	1.444	1.406	*L	0.9995	
104) TP 1,3-Dichlorobe	0.643	0.722	0.760	0.757	0.734	0.732	0.718	0.724	5.42	
105) TP 1,4-Dichlorobe	0.681	0.712	0.743	0.738	0.714	0.722	0.712	0.718	2.86	
106) TP p-Diethylbenzene		0.566	0.809	0.846	0.825	0.842	0.840	0.788	13.93	
107) TP n-Butylbenzene	0.629	0.830	1.214	1.226	1.171	1.197	1.177	*L	0.9996	
108) TP 1,2-Dichlorobe	0.568	0.628	0.667	0.670	0.653	0.655	0.639	0.640	5.50	
109) TP 1,2,4,5-Tetram		0.737	1.085	1.193	1.167	1.175	1.128	1.081	16.00	
110) TP 1,2-Dibromo-3-	0.007	0.027	0.033	0.037	0.040	0.040	0.040	*L	0.9993	
111) TP 1,3,5-Trichlor	0.347	0.382	0.443	0.449	0.433	0.439	0.427	0.417	9.11	
112) TP Hexachlorobuta	0.091	0.104	0.150	0.152	0.147	0.155	0.160	*L	0.9989	
113) TP 1,2,4-Trichlor	0.285	0.311	0.368	0.385	0.380	0.381	0.374	0.355#	11.26	
114) TP Naphthalene	0.486	0.583	0.770	0.883	0.870	0.861	0.815	*L	0.9987	
115) TP 1,2,3-Trichlor	0.237	0.280	0.315	0.328	0.320	0.320	0.310	0.301#	10.69	



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience Lab Number : L2447890
 Project Name : RANCO MINE Project Number : 12123
 Instrument ID : VOA130 Ical Ref : ICAL21400
 Calibration dates : 08/16/24 22:06 08/17/24 01:44

Calibration Files

L11 =V30240816N04.D L1 =V30240816N06.D L2 =V30240816N08.D L3 =V30240816N10.D L4 =V30240816N11.D
 L6 =V30240816N12.D L8 =V30240816N13.D L10 =V30240816N14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo		0.175	0.208	0.229	0.252	0.258	0.244	0.250	0.231	13.07
3) TP Chloromethane		0.248	0.240	0.243	0.258	0.264	0.245	0.247	0.249	3.46
4) TP Vinyl chloride	0.219	0.171	0.203	0.221	0.243	0.250	0.237	0.245	0.224	11.84
5) TP Bromomethane		0.142	0.122	0.122	0.136	0.143	0.135	0.139	0.134	6.42
6) TP Chloroethane		0.127	0.131	0.139	0.150	0.156	0.145	0.149	0.143	7.51
7) TP Trichlorofluor		0.183	0.221	0.242	0.267	0.285	0.271	0.294	0.252	15.60
8) TP Ethyl ether		0.058	0.062	0.066	0.073	0.083	0.080	0.086	0.073	15.01
10) TP 1,1-Dichloroet		0.122	0.139	0.149	0.164	0.169	0.161	0.175	0.154	12.15
11) TP Carbon disulfide		0.400	0.428	0.448	0.496	0.528	0.511	0.561	0.482	12.03
12) TP Freon-113			0.112	0.132	0.160	0.170	0.159	0.165	0.150	15.19
13) TP Iodomethane		0.323	0.230	0.226	0.255	0.280	0.268	0.291	0.268	12.85
14) TP Acrolein		0.022	0.020	0.018	0.019	0.020	0.021	0.023	0.020	8.76
15) TP Methylene chlo		0.201	0.193	0.195	0.211	0.221	0.207	0.216	0.206	5.17
17) TP Acetone			0.027	0.023	0.023	0.025	0.024	0.027	0.025	7.12
18) TP trans-1,2-Dich		0.121	0.139	0.154	0.171	0.178	0.167	0.181	0.159	13.95
19) TP Methyl acetate		0.061	0.054	0.054	0.053	0.058	0.057	0.063	0.057	6.42
21) TP Methyl tert butyl ether		0.296	0.305	0.299	0.302	0.347	0.350	0.395	0.328	11.40
22) TP tert-Butyl alc		0.005	0.005	0.006	0.006	0.006	0.006	0.007	0.006#	12.64
24) TP Diisopropyl ether		0.354	0.373	0.416	0.448	0.441	0.394	0.395	0.403	8.55
25) TP 1,1-Dichloroet		0.250	0.275	0.290	0.315	0.325	0.303	0.335	0.299#	10.05
26) TP Halothane			0.083	0.095	0.118	0.139	0.131	0.135	0.117	19.77
27) TP Acrylonitrile		0.028	0.034	0.034	0.036	0.039	0.039	0.044	0.036	13.69
28) TP Ethyl tert-but		0.349	0.355	0.388	0.409	0.405	0.374	0.394	0.382	6.13
29) TP Vinyl acetate		0.263	0.226	0.220	0.238	0.259	0.257	0.277	0.249	8.45
30) TP cis-1,2-Dichlo		0.160	0.167	0.175	0.198	0.206	0.192	0.205	0.186#	9.97
31) TP 2,2-Dichloropr		0.180	0.184	0.209	0.248	0.269	0.254	0.260	0.229	16.33
33) TP Bromochloromet		0.075	0.079	0.083	0.091	0.097	0.092	0.102	0.089#	10.87
34) TP Cyclohexane		0.172	0.199	0.216	0.252	0.285	0.273	0.285	0.240	18.73
35) TP Chloroform		0.242	0.263	0.276	0.315	0.325	0.302	0.315	0.291#	10.79
36) TP Ethyl acetate		0.086	0.086	0.077	0.074	0.079	0.077	0.084	0.081	6.10
37) TP Carbon tetrachloride		0.125	0.146	0.166	0.201	0.238	0.230		*Q	0.9971
38) TP Tetrahydrofuran		0.033	0.028	0.023	0.023	0.025	0.025	0.028	0.027	13.60
39) S Dibromofluoromethane	0.240	0.240	0.240	0.246	0.258	0.277	0.287	0.303	0.261	9.46
40) TP 1,1,1-Trichlor		0.158	0.186	0.207	0.244	0.277	0.261	0.275	*Q	0.9985
42) TP 2-Butanone		0.050	0.040	0.035	0.033	0.034	0.034	0.037	0.038	15.52



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience Lab Number : L2447890
 Project Name : RANCO MINE Project Number : 12123
 Instrument ID : VOA130 Ical Ref : ICAL21400
 Calibration dates : 08/16/24 22:06 08/17/24 01:44

Calibration Files

L11 =V30240816N04.D L1 =V30240816N06.D L2 =V30240816N08.D L3 =V30240816N10.D L4 =V30240816N11.D
 L6 =V30240816N12.D L8 =V30240816N13.D L10 =V30240816N14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
43) TP 1,1-Dichloropr	0.151	0.177	0.188	0.203	0.224	0.215	0.231	0.198	14.22	
45) TP Benzene	0.695	0.575	0.607	0.626	0.648	0.648	0.599	0.632	0.629	5.82
46) TP Tertiary-Amyl Methyl Ether	0.323	0.342	0.358	0.379	0.377	0.346	0.348	0.353	5.64	
47) S 1,2-Dichloroethane-d4	0.222	0.225	0.229	0.242	0.242	0.265	0.280	0.292	0.250	10.67
48) TP 1,2-Dichloroet	0.152	0.158	0.170	0.187	0.203	0.193	0.203	0.181	11.54	
51) TP Methyl cyclohe	0.184	0.222	0.244	0.276	0.283	0.262	0.269	0.249	14.17	
52) TP Trichloroethene	0.179	0.152	0.155	0.162	0.170	0.178	0.166	0.180	0.168#	6.47
54) TP Dibromomethane	0.069	0.078	0.082	0.087	0.095	0.092	0.101	0.086	12.50	
55) TP 1,2-Dichloropr	0.118	0.136	0.140	0.148	0.163	0.155	0.168	0.147#	11.73	
57) TP 2-Chloroethyl	0.073	0.081	0.090	0.095	0.093	0.088	0.086	0.087	8.84	
58) TP Bromodichlorom	0.170	0.166	0.176	0.197	0.232	0.225	0.242	0.201#	15.90	
61) TP 1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	7.61	
62) TP cis-1,3-Dichlo	0.179	0.199	0.217	0.233	0.255	0.244	0.265	0.227#	13.57	
63) I Chlorobenzene-d5	-----ISTD-----									
64) S Toluene-d8	1.335	1.348	1.330	1.333	1.296	1.261	1.219	1.192	1.289	4.57
65) TP Toluene	0.486	0.531	0.557	0.573	0.536	0.471	0.474	0.518	7.94	
66) TP 4-Methyl-2-pen	0.038	0.045	0.046	0.045	0.041	0.042	0.043	6.82		
67) TP Tetrachloroethene	0.184	0.213	0.221	0.227	0.212	0.189	0.193	0.206	8.13	
69) TP trans-1,3-Dich	0.202	0.215	0.235	0.241	0.240	0.222	0.241	0.228#	6.64	
71) TP Ethyl methacry	0.155	0.186	0.211	0.219	0.213	0.196	0.198	0.197	10.98	
72) TP 1,1,2-Trichlor	0.119	0.120	0.123	0.118	0.113	0.105	0.114	0.116#	5.26	
73) TP Chlorodibromom	0.150	0.151	0.156	0.160	0.164	0.157	0.177	0.159#	5.70	
74) TP 1,3-Dichloropr	0.230	0.250	0.253	0.242	0.233	0.217	0.235	0.237	5.24	
75) TP 1,2-Dibromoethane	0.125	0.122	0.117	0.110	0.111	0.106	0.122	0.116#	6.37	
77) TP 2-Hexanone	0.061	0.069	0.070	0.075	0.073	0.069	0.070	0.070	6.47	
78) T Chlorobenzene	0.545	0.570	0.600	0.623	0.601	0.535	0.554	0.575	5.79	
79) TP Ethylbenzene	0.851	0.930	1.007	1.069	1.041	0.941	0.977	0.974	7.60	
80) T 1,1,1,2-Tetrac	0.150	0.159	0.166	0.177	0.174	0.157	0.171	0.165	6.04	
81) TP p/m Xylene	0.348	0.377	0.399	0.419	0.410	0.372	0.392	0.388	6.29	
82) TP o Xylene	0.346	0.363	0.381	0.400	0.391	0.358	0.380	0.374	5.14	
83) TP Styrene	0.547	0.597	0.639	0.672	0.659	0.593	0.612	0.617	6.99	
84) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
85) TP Bromoform	0.158	0.173	0.179	0.184	0.175	0.161	0.171	0.172	5.40	
87) TP Isopropylbenzene	1.447	1.665	1.821	1.897	1.731	1.545	1.587	1.670	9.47	
88) S 4-Bromofluorobenzene	0.890	0.885	0.888	0.899	0.892	0.856	0.849	0.855	0.877	2.25
89) TP Bromobenzene	0.401	0.431	0.466	0.485	0.451	0.404	0.420	0.437	7.29	



Initial Calibration Summary

Form 6

Volatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : VOA130
Calibration dates : 08/16/24 22:06 08/17/24 01:44
Lab Number : L2447890
Project Number : 12123
Ical Ref : ICAL21400

Calibration Files

L11 =V30240816N04.D L1 =V30240816N06.D L2 =V30240816N08.D L3 =V30240816N10.D L4 =V30240816N11.D
 L6 =V30240816N12.D L8 =V30240816N13.D L10 =V30240816N14.D

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
90) TP n-Propylbenzene	1.767	2.008	2.199	2.259	2.092	1.873	1.867	2.009	9.16	
91) TP 1,4-Dichlorobu	0.447	0.444	0.473	0.455	0.407	0.371	0.382	0.425	9.17	
92) TP 1,1,2,2-Tetrac	0.284	0.289	0.318	0.322	0.303	0.283	0.294	0.299	5.28	
93) TP 4-Ethyltoluene	1.447	1.657	1.819	1.897	1.779	1.601	1.619	1.688	9.07	
94) TP 2-Chlorotoluene	1.163	1.266	1.339	1.404	1.286	1.123	1.152	1.248	8.43	
95) TP 1,3,5-Trimethy	1.267	1.420	1.576	1.694	1.622	1.452	1.446	1.496	9.60	
96) TP 1,2,3-Trichlor	0.260	0.252	0.273	0.255	0.224	0.206	0.219	0.241	10.23	
97) TP trans-1,4-Dich	0.064	0.075	0.076	0.070	0.069	0.067	0.075	0.071	6.44	
98) TP 4-Chlorotoluene	1.210	1.323	1.389	1.450	1.351	1.206	1.234	1.309	7.24	
99) TP tert-Butylbenzene	1.099	1.241	1.324	1.365	1.249	1.129	1.151	1.223	8.24	
102) TP 1,2,4-Trimethy	1.151	1.328	1.508	1.637	1.607	1.446	1.442	1.446	11.56	
103) TP sec-Butylbenzene	1.490	1.761	1.934	1.980	1.824	1.657	1.643	1.756	9.87	
104) TP p-Isopropyltol	1.273	1.476	1.643	1.718	1.648	1.492	1.474	1.532	9.82	
105) TP 1,3-Dichlorobe	0.811	0.843	0.896	0.934	0.890	0.805	0.829	0.858	5.70	
106) TP 1,4-Dichlorobe	0.803	0.862	0.907	0.938	0.902	0.816	0.833	0.866	5.90	
107) TP p-Diethylbenzene	0.721	0.800	0.912	0.982	0.995	0.909	0.929	0.893	11.05	
108) TP n-Butylbenzene	1.002	1.185	1.331	1.433	1.417	1.283	1.265	1.274	11.60	
109) TP 1,2-Dichlorobe	0.764	0.808	0.849	0.878	0.837	0.767	0.784	0.813	5.40	
110) TP 1,2,4,5-Tetram	1.125	1.232	1.349	1.497	1.534	1.392	1.403	1.362	10.54	
111) TP 1,2-Dibromo-3-	0.032	0.045	0.046	0.042	0.043	0.042	0.045	0.042	11.31	
112) TP 1,3,5-Trichlor	0.500	0.550	0.602	0.660	0.671	0.605	0.627	0.602	10.04	
113) TP Hexachlorobuta	0.172	0.193	0.210	0.228	0.229	0.206	0.208	0.207	9.58	
114) TP 1,2,4-Trichlor	0.465	0.521	0.556	0.594	0.588	0.532	0.553	0.544	8.10	
115) TP Naphthalene	1.090	1.159	1.225	1.216	1.148	1.067	1.087	1.142	5.54	
116) TP 1,2,3-Trichlor	0.470	0.497	0.538	0.553	0.533	0.484	0.499	0.510	6.05	



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA130
 Lab File ID : V30240826A01
 Sample No : WG1964251-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/26/24 06:30
 Init. Calib. Date(s) : 08/16/24 08/17/24
 Init. Calib. Times : 22:06 01:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	77	0
Dichlorodifluoromethane	0.231	0.195	-	15.6	20	66	0
Chloromethane	0.249	0.229	-	8	20	73	0
Vinyl chloride	0.224	0.243	-	-8.5	20	85	0
Bromomethane	0.134	0.119	-	11.2	20	75	0
Chloroethane	0.143	0.158	-	-10.5	20	88	0
Trichlorofluoromethane	0.252	0.259	-	-2.8	20	83	0
Ethyl ether	0.073	0.077	-	-5.5	20	90	0
1,1-Dichloroethene	0.154	0.153	-	0.6	20	80	0
Carbon disulfide	0.482	0.511	-	-6	20	88	0
Freon-113	0.15	0.148	-	1.3	20	87	0
Acrolein	0.02	0.021	-	-5	20	91	0
Methylene chloride	0.206	0.215	-	-4.4	20	85	0
Acetone	0.025	0.029	-	-16	20	97	0
trans-1,2-Dichloroethene	0.159	0.172	-	-8.2	20	86	0
Methyl acetate	0.057	0.059	-	-3.5	20	84	0
Methyl tert-butyl ether	0.328	0.309	-	5.8	20	80	0
tert-Butyl alcohol	0.00591	0.00674*	-	-14	20	91	0
Diisopropyl ether	0.403	0.45	-	-11.7	20	84	0
1,1-Dichloroethane	0.299	0.322	-	-7.7	20	86	0
Halothane	0.117	0.11	-	6	20	90	0
Acrylonitrile	0.036	0.038	-	-5.6	20	85	0
Ethyl tert-butyl ether	0.382	0.391	-	-2.4	20	78	0
Vinyl acetate	0.249	0.252	-	-1.2	20	89	0
cis-1,2-Dichloroethene	0.186	0.195*	-	-4.8	20	86	0
2,2-Dichloropropane	0.229	0.249	-	-8.7	20	92	0
Bromochloromethane	0.089	0.087*	-	2.2	20	81	0
Cyclohexane	0.24	0.247	-	-2.9	20	88	0
Chloroform	0.291	0.314	-	-7.9	20	88	0
Ethyl acetate	0.081	0.085	-	-4.9	20	85	0
Carbon tetrachloride	10	9.244	-	7.6	20	84	0
Tetrahydrofuran	0.027	0.028	-	-3.7	20	96	0
Dibromofluoromethane	0.261	0.249	-	4.6	20	78	0
1,1,1-Trichloroethane	10	9.686	-	3.1	20	89	0
2-Butanone	0.038	0.033	-	13.2	20	74	0
1,1-Dichloropropene	0.198	0.206	-	-4	20	85	0
Benzene	0.629	0.688	-	-9.4	20	85	0
tert-Amyl methyl ether	0.353	0.347	-	1.7	20	75	0
1,2-Dichloroethane-d4	0.25	0.26	-	-4	20	83	0
1,2-Dichloroethane	0.181	0.19	-	-5	20	87	0
Methyl cyclohexane	0.249	0.266	-	-6.8	20	85	0
Trichloroethene	0.168	0.17*	-	-1.2	20	81	0
Dibromomethane	0.086	0.089	-	-3.5	20	84	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA130
 Lab File ID : V30240826A01
 Sample No : WG1964251-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/26/24 06:30
 Init. Calib. Date(s) : 08/16/24 08/17/24
 Init. Calib. Times : 22:06 01:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.147	0.161*	-	-9.5	20	89	0
Bromodichloromethane	0.201	0.207*	-	-3	20	91	0
1,4-Dioxane	0.00094	0.00106*	-	-12.8	20	91	0
cis-1,3-Dichloropropene	0.227	0.233*	-	-2.6	20	83	0
Chlorobenzene-d5	1	1	-	0	20	74	0
Toluene-d8	1.289	1.374	-	-6.6	20	76	0
Toluene	0.518	0.619	-	-19.5	20	82	0
4-Methyl-2-pentanone	0.043	0.043	-	0	20	71	0
Tetrachloroethene	0.206	0.227	-	-10.2	20	76	0
trans-1,3-Dichloropropene	0.228	0.257*	-	-12.7	20	81	0
Ethyl methacrylate	0.197	0.2	-	-1.5	20	70	0
1,1,2-Trichloroethane	0.116	0.138*	-	-19	20	82	0
Chlorodibromomethane	0.159	0.172*	-	-8.2	20	81	0
1,3-Dichloropropane	0.237	0.279	-	-17.7	20	81	0
1,2-Dibromoethane	0.116	0.13*	-	-12.1	20	82	0
2-Hexanone	0.07	0.074	-	-5.7	20	78	0
Chlorobenzene	0.575	0.646	-	-12.3	20	79	0
Ethylbenzene	0.974	1.113	-	-14.3	20	82	0
1,1,1,2-Tetrachloroethane	0.165	0.187	-	-13.3	20	83	0
p/m Xylene	0.388	0.437	-	-12.6	20	81	0
o Xylene	0.374	0.414	-	-10.7	20	80	0
Styrene	0.617	0.699	-	-13.3	20	81	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	76	0
Bromoform	0.172	0.19	-	-10.5	20	80	0
Isopropylbenzene	1.67	1.941	-	-16.2	20	81	0
4-Bromofluorobenzene	0.877	0.882	-	-0.6	20	74	0
Bromobenzene	0.437	0.467	-	-6.9	20	76	0
n-Propylbenzene	2.009	2.46	-	-22.4*	20	85	0
1,4-Dichlorobutane	0.425	0.504	-	-18.6	20	81	0
1,1,2,2-Tetrachloroethane	0.299	0.363	-	-21.4*	20	86	0
4-Ethyltoluene	1.688	1.996	-	-18.2	20	83	0
2-Chlorotoluene	1.248	1.496	-	-19.9	20	85	0
1,3,5-Trimethylbenzene	1.496	1.726	-	-15.4	20	83	0
1,2,3-Trichloropropane	0.241	0.286	-	-18.7	20	79	0
trans-1,4-Dichloro-2-buten	0.071	0.084	-	-18.3	20	84	0
4-Chlorotoluene	1.309	1.538	-	-17.5	20	84	0
tert-Butylbenzene	1.223	1.4	-	-14.5	20	80	0
1,2,4-Trimethylbenzene	1.446	1.673	-	-15.7	20	84	0
sec-Butylbenzene	1.756	2.14	-	-21.9*	20	84	0
p-Isopropyltoluene	1.532	1.804	-	-17.8	20	83	0
1,3-Dichlorobenzene	0.858	0.974	-	-13.5	20	82	0
1,4-Dichlorobenzene	0.866	0.978	-	-12.9	20	82	0
p-Diethylbenzene	0.893	1.025	-	-14.8	20	85	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA130
 Lab File ID : V30240826A01
 Sample No : WG1964251-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/26/24 06:30
 Init. Calib. Date(s) : 08/16/24 08/17/24
 Init. Calib. Times : 22:06 01:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.274	1.615	-	-26.8*	20	92	0
1,2-Dichlorobenzene	0.813	0.894	-	-10	20	80	0
1,2,4,5-Tetramethylbenzene	1.362	1.493	-	-9.6	20	84	0
1,2-Dibromo-3-chloropropan	0.042	0.049	-	-16.7	20	80	0
1,3,5-Trichlorobenzene	0.602	0.662	-	-10	20	83	0
Hexachlorobutadiene	0.207	0.223	-	-7.7	20	80	0
1,2,4-Trichlorobenzene	0.544	0.603	-	-10.8	20	82	0
Naphthalene	1.142	1.286	-	-12.6	20	79	0
1,2,3-Trichlorobenzene	0.51	0.564	-	-10.6	20	79	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA122
 Lab File ID : V22240826A01
 Sample No : WG1964387-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/26/24 08:20
 Init. Calib. Date(s) : 07/29/24 07/29/24
 Init. Calib. Times : 13:23 17:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	85	0
Dichlorodifluoromethane	0.197	0.174	-	11.7	20	69	0
Chloromethane	0.263	0.239	-	9.1	20	67	0
Vinyl chloride	0.208	0.231	-	-11.1	20	85	0
Bromomethane	0.084	0.074	-	11.9	20	85	0
Chloroethane	0.12	0.106	-	11.7	20	67	0
Trichlorofluoromethane	10	10.64	-	-6.4	20	84	0
Ethyl ether	0.07	0.063	-	10	20	75	0
1,1-Dichloroethene	0.138	0.144	-	-4.3	20	81	0
Carbon disulfide	0.454	0.477	-	-5.1	20	80	0
Freon-113	0.143	0.152	-	-6.3	20	84	0
Acrolein	0.024	0.02	-	16.7	20	70	0
Methylene chloride	0.183	0.176	-	3.8	20	79	0
Acetone	0.033	0.029	-	12.1	20	70	0
trans-1,2-Dichloroethene	0.162	0.162	-	0	20	78	0
Methyl acetate	0.086	0.068	-	20.9*	20	68	0
Methyl tert-butyl ether	0.309	0.27	-	12.6	20	73	0
tert-Butyl alcohol	0.00648	0.00624*	-	3.7	20	80	0
Diisopropyl ether	0.581	0.485	-	16.5	20	70	0
1,1-Dichloroethane	0.331	0.331	-	0	20	77	0
Halothane	0.121	0.125	-	-3.3	20	81	0
Acrylonitrile	0.046	0.042	-	8.7	20	73	0
Ethyl tert-butyl ether	0.418	0.363	-	13.2	20	75	0
Vinyl acetate	0.348	0.263	-	24.4*	20	64	0
cis-1,2-Dichloroethene	0.179	0.178*	-	0.6	20	77	0
2,2-Dichloropropane	0.207	0.207	-	0	20	79	0
Bromochloromethane	0.085	0.089*	-	-4.7	20	82	0
Cyclohexane	10	10.118	-	-1.2	20	81	0
Chloroform	0.286	0.275*	-	3.8	20	77	0
Ethyl acetate	0.112	0.083	-	25.9*	20	64	0
Carbon tetrachloride	0.206	0.218	-	-5.8	20	80	0
Tetrahydrofuran	0.037	0.031	-	16.2	20	70	0
Dibromofluoromethane	0.349	0.35	-	-0.3	20	83	0
1,1,1-Trichloroethane	0.241	0.241	-	0	20	78	0
2-Butanone	0.047	0.041	-	12.8	20	78	0
1,1-Dichloropropene	0.195	0.184	-	5.6	20	73	0
Benzene	0.633	0.573	-	9.5	20	74	0
tert-Amyl methyl ether	0.202	0.167	-	17.3	20	75	0
1,2-Dichloroethane-d4	0.295	0.285	-	3.4	20	80	0
1,2-Dichloroethane	0.158	0.15	-	5.1	20	75	0
Methyl cyclohexane	10	9.431	-	5.7	20	82	0
Trichloroethene	0.135	0.123*	-	8.9	20	73	0
Dibromomethane	0.068	0.064	-	5.9	20	78	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA122
 Lab File ID : V22240826A01
 Sample No : WG1964387-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/26/24 08:20
 Init. Calib. Date(s) : 07/29/24 07/29/24
 Init. Calib. Times : 13:23 17:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.141	0.131*	-	7.1	20	72	0
Bromodichloromethane	0.167	0.158*	-	5.4	20	77	0
1,4-Dioxane	0.00056	0.00063*	-	-12.5	20	89	0
cis-1,3-Dichloropropene	0.172	0.161*	-	6.4	20	73	0
Chlorobenzene-d5	1	1	-	0	20	87	0
Toluene-d8	1.274	1.193	-	6.4	20	82	0
Toluene	0.412	0.389	-	5.6	20	79	0
4-Methyl-2-pentanone	0.033	0.025*	-	24.2*	20	76	0
Tetrachloroethene	0.162	0.179	-	-10.5	20	92	0
trans-1,3-Dichloropropene	10	7.618	-	23.8*	20	77	0
Ethyl methacrylate	0.133	0.092	-	30.8*	20	65	0
1,1,2-Trichloroethane	0.097	0.08*	-	17.5	20	74	0
Chlorodibromomethane	10	8.482	-	15.2	20	83	0
1,3-Dichloropropane	0.19	0.165	-	13.2	20	76	0
1,2-Dibromoethane	0.108	0.097*	-	10.2	20	79	0
2-Hexanone	0.061	0.042	-	31.1*	20	66	0
Chlorobenzene	0.467	0.457	-	2.1	20	82	0
Ethylbenzene	0.778	0.755	-	3	20	77	0
1,1,1,2-Tetrachloroethane	0.148	0.142	-	4.1	20	86	0
p/m Xylene	0.302	0.305	-	-1	20	80	0
o Xylene	0.285	0.285	-	0	20	79	0
Styrene	0.459	0.461	-	-0.4	20	80	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	93	0
Bromoform	0.15	0.129	-	14	20	88	0
Isopropylbenzene	1.551	1.49	-	3.9	20	81	0
4-Bromofluorobenzene	0.911	0.808	-	11.3	20	81	0
Bromobenzene	0.365	0.353	-	3.3	20	88	0
n-Propylbenzene	1.802	1.694	-	6	20	79	0
1,4-Dichlorobutane	0.472	0.383	-	18.9	20	76	0
1,1,2,2-Tetrachloroethane	0.254	0.196*	-	22.8*	20	74	0
4-Ethyltoluene	1.469	1.392	-	5.2	20	81	0
2-Chlorotoluene	1.086	0.989	-	8.9	20	80	0
1,3,5-Trimethylbenzene	1.245	1.2	-	3.6	20	83	0
1,2,3-Trichloropropane	0.194	0.153	-	21.1*	20	75	0
trans-1,4-Dichloro-2-buten	0.086	0.067	-	22.1*	20	75	0
4-Chlorotoluene	1.121	0.997	-	11.1	20	78	0
tert-Butylbenzene	1.081	1.088	-	-0.6	20	86	0
1,2,4-Trimethylbenzene	1.391	1.207	-	13.2	20	74	0
sec-Butylbenzene	10	9.421	-	5.8	20	84	0
p-Isopropyltoluene	10	9.625	-	3.8	20	87	0
1,3-Dichlorobenzene	0.724	0.716	-	1.1	20	88	0
1,4-Dichlorobenzene	0.718	0.691	-	3.8	20	87	0
p-Diethylbenzene	0.788	0.748	-	5.1	20	86	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA122
 Lab File ID : V22240826A01
 Sample No : WG1964387-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/26/24 08:20
 Init. Calib. Date(s) : 07/29/24 07/29/24
 Init. Calib. Times : 13:23 17:04

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	10	9.237	-	7.6	20	82	0
1,2-Dichlorobenzene	0.64	0.624	-	2.5	20	87	0
1,2,4,5-Tetramethylbenzene	1.081	0.953	-	11.8	20	82	0
1,2-Dibromo-3-chloropropan	10	7.967	-	20.3*	20	84	0
1,3,5-Trichlorobenzene	0.417	0.429	-	-2.9	20	90	0
Hexachlorobutadiene	10	9.978	-	0.2	20	94	0
1,2,4-Trichlorobenzene	0.355	0.35*	-	1.4	20	89	0
Naphthalene	10	8.329	-	16.7	20	82	0
1,2,3-Trichlorobenzene	0.301	0.297*	-	1.3	20	88	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA130
 Lab File ID : V30240827A01
 Sample No : WG1964633-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 06:30
 Init. Calib. Date(s) : 08/16/24 08/17/24
 Init. Calib. Times : 22:06 01:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	65	0
Dichlorodifluoromethane	0.231	0.198	-	14.3	20	56	0
Chloromethane	0.249	0.227	-	8.8	20	61	0
Vinyl chloride	0.224	0.257	-	-14.7	20	75	0
Bromomethane	0.134	0.122	-	9	20	65	0
Chloroethane	0.143	0.166	-	-16.1	20	78	-.01
Trichlorofluoromethane	0.252	0.286	-	-13.5	20	77	0
Ethyl ether	0.073	0.083	-	-13.7	20	81	0
1,1-Dichloroethene	0.154	0.151	-	1.9	20	66	0
Carbon disulfide	0.482	0.518	-	-7.5	20	75	0
Freon-113	0.15	0.156	-	-4	20	77	0
Acrolein	0.02	0.022	-	-10	20	82	0
Methylene chloride	0.206	0.213	-	-3.4	20	71	0
Acetone	0.025	0.034	-	-36*	20	95	0
trans-1,2-Dichloroethene	0.159	0.166	-	-4.4	20	70	0
Methyl acetate	0.057	0.065	-	-14	20	78	0
Methyl tert-butyl ether	0.328	0.305	-	7	20	66	0
tert-Butyl alcohol	0.00591	0.00746*	-	-26.2*	20	85	0
Diisopropyl ether	0.403	0.442	-	-9.7	20	69	0
1,1-Dichloroethane	0.299	0.334	-	-11.7	20	75	0
Halothane	0.117	0.111	-	5.1	20	76	0
Acrylonitrile	0.036	0.042	-	-16.7	20	81	0
Ethyl tert-butyl ether	0.382	0.385	-	-0.8	20	65	0
Vinyl acetate	0.249	0.254	-	-2	20	75	0
cis-1,2-Dichloroethene	0.186	0.185*	-	0.5	20	69	0
2,2-Dichloropropane	0.229	0.245	-	-7	20	76	0
Bromochloromethane	0.089	0.085*	-	4.5	20	66	0
Cyclohexane	0.24	0.246	-	-2.5	20	74	0
Chloroform	0.291	0.316	-	-8.6	20	74	0
Ethyl acetate	0.081	0.088	-	-8.6	20	74	0
Carbon tetrachloride	10	9.522	-	4.8	20	73	0
Tetrahydrofuran	0.027	0.031	-	-14.8	20	89	0
Dibromofluoromethane	0.261	0.262	-	-0.4	20	69	0
1,1,1-Trichloroethane	10	9.67	-	3.3	20	74	0
2-Butanone	0.038	0.037	-	2.6	20	69	0
1,1-Dichloropropene	0.198	0.201	-	-1.5	20	70	0
Benzene	0.629	0.662	-	-5.2	20	69	0
tert-Amyl methyl ether	0.353	0.337	-	4.5	20	61	0
1,2-Dichloroethane-d4	0.25	0.285	-	-14	20	77	0
1,2-Dichloroethane	0.181	0.198	-	-9.4	20	76	0
Methyl cyclohexane	0.249	0.254	-	-2	20	68	0
Trichloroethene	0.168	0.164*	-	2.4	20	66	0
Dibromomethane	0.086	0.093	-	-8.1	20	73	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA130
 Lab File ID : V30240827A01
 Sample No : WG1964633-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 06:30
 Init. Calib. Date(s) : 08/16/24 08/17/24
 Init. Calib. Times : 22:06 01:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.147	0.162*	-	-10.2	20	75	0
Bromodichloromethane	0.201	0.204*	-	-1.5	20	75	0
1,4-Dioxane	0.00094	0.00109*	-	-16	20	79	0
cis-1,3-Dichloropropene	0.227	0.224*	-	1.3	20	67	0
Chlorobenzene-d5	1	1	-	0	20	62	0
Toluene-d8	1.289	1.351	-	-4.8	20	63	0
Toluene	0.518	0.578	-	-11.6	20	65	0
4-Methyl-2-pentanone	0.043	0.043	-	0	20	60	0
Tetrachloroethene	0.206	0.209	-	-1.5	20	59	0
trans-1,3-Dichloropropene	0.228	0.249*	-	-9.2	20	66	0
Ethyl methacrylate	0.197	0.189	-	4.1	20	56	0
1,1,2-Trichloroethane	0.116	0.137*	-	-18.1	20	70	0
Chlorodibromomethane	0.159	0.165*	-	-3.8	20	66	0
1,3-Dichloropropane	0.237	0.276	-	-16.5	20	68	0
1,2-Dibromoethane	0.116	0.128*	-	-10.3	20	68	0
2-Hexanone	0.07	0.075	-	-7.1	20	67	0
Chlorobenzene	0.575	0.607	-	-5.6	20	63	0
Ethylbenzene	0.974	1.037	-	-6.5	20	64	0
1,1,1,2-Tetrachloroethane	0.165	0.172	-	-4.2	20	65	0
p/m Xylene	0.388	0.4	-	-3.1	20	63	0
o Xylene	0.374	0.381	-	-1.9	20	63	0
Styrene	0.617	0.656	-	-6.3	20	64	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	64	0
Bromoform	0.172	0.177	-	-2.9	20	63	0
Isopropylbenzene	1.67	1.785	-	-6.9	20	63	0
4-Bromofluorobenzene	0.877	0.859	-	2.1	20	61	0
Bromobenzene	0.437	0.433	-	0.9	20	59	0
n-Propylbenzene	2.009	2.323	-	-15.6	20	68	0
1,4-Dichlorobutane	0.425	0.514	-	-20.9*	20	70	0
1,1,2,2-Tetrachloroethane	0.299	0.368	-	-23.1*	20	74	0
4-Ethyltoluene	1.688	1.841	-	-9.1	20	65	0
2-Chlorotoluene	1.248	1.409	-	-12.9	20	67	0
1,3,5-Trimethylbenzene	1.496	1.617	-	-8.1	20	66	0
1,2,3-Trichloropropane	0.241	0.304	-	-26.1*	20	72	0
trans-1,4-Dichloro-2-buten	0.071	0.089	-	-25.4*	20	75	0
4-Chlorotoluene	1.309	1.442	-	-10.2	20	67	0
tert-Butylbenzene	1.223	1.285	-	-5.1	20	62	0
1,2,4-Trimethylbenzene	1.446	1.55	-	-7.2	20	66	0
sec-Butylbenzene	1.756	2.005	-	-14.2	20	66	0
p-Isopropyltoluene	1.532	1.664	-	-8.6	20	65	0
1,3-Dichlorobenzene	0.858	0.891	-	-3.8	20	64	0
1,4-Dichlorobenzene	0.866	0.92	-	-6.2	20	65	0
p-Diethylbenzene	0.893	0.952	-	-6.6	20	67	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : VOA130
 Lab File ID : V30240827A01
 Sample No : WG1964633-2
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 06:30
 Init. Calib. Date(s) : 08/16/24 08/17/24
 Init. Calib. Times : 22:06 01:44

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.274	1.531	-	-20.2*	20	74	0
1,2-Dichlorobenzene	0.813	0.846	-	-4.1	20	64	0
1,2,4,5-Tetramethylbenzene	1.362	1.323	-	2.9	20	63	0
1,2-Dibromo-3-chloropropan	0.042	0.048	-	-14.3	20	66	0
1,3,5-Trichlorobenzene	0.602	0.601	-	0.2	20	64	0
Hexachlorobutadiene	0.207	0.199	-	3.9	20	60	0
1,2,4-Trichlorobenzene	0.544	0.539	-	0.9	20	62	0
Naphthalene	1.142	1.189	-	-4.1	20	62	0
1,2,3-Trichlorobenzene	0.51	0.512	-	-0.4	20	61	0

* Value outside of QC limits.



SVOC Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8270E Semi-Volatiles
Data for Alpha Analytical, SDG Number: L2447890**

**11 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 SV112 on 06-25-24. 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. 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 RRFs for 2-chloronaphthalene and 2,6-dinitrotoluene were below the method minimums, but not below 0.010 on 08-27-24 (WG1964132-3). The RRF for 2-chloronaphthalene was below the method minimum, but not below 0.010 on 08-27-24 (WG1964274-3). The RRF for 2-chloronaphthalene was below the method minimum, but not below 0.010 on 08-28-24 (WG1964949-3). The RRF for 2-chloronaphthalene was below the method minimum, but not below 0.010 on 08-28-24 (WG1964990-3). The RRF for 2-chloronaphthalene was below the method minimum, but not below 0.010 on 08-30-24 (WG1965924-3). The %D for butyl benzyl phthalate was above the method maximum on 08-27-24 (WG1964132-3). The %D for 2,4-dinitrophenol was above the method maximum on 08-27-24 (WG1964274-3). The %D for d-n-octylphthalate was above the method maximum on 08-28-24 (WG1964949-3). The %Ds for n-nitrosodi-n-propylamine and isophorone were above the method maximum on 08-28-24 (WG1964990-3). 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 butyl benzyl phthalate was above the allowable maximum (20%) on 08-27-24 (WG1964132-3). The %D for 2,4-dinitrophenol was above the allowable maximum (20%) on 08-27-24 (WG1964274-3). The %D for 1,2,4,5-tetrachlorobenzene was above the allowable maximum (20%) on 08-27-24 (WG1964274-4). The %D for di-n-octylphthalate was above the allowable maximum (20%) on 08-28-24 (WG1964949-3). The %Ds for 1,2,4,5-tetrachlorobenzene and biphenyl were above the allowable maximum (20%) on 08-28-24 (WG1964949-4). The %Ds for n-nitrosodi-n-propylamine, benzoic acid, and isophorone were above the allowable maximum (20%) on 08-28-24 (WG1964990-3). The %Ds for 1,2,4,5-tetrachlorobenzene and biphenyl were above the allowable maximum (20%) on 08-28-24 (WG1964990-4). The %D for biphenyl was above the allowable maximum (20%) on 08-30-24 (WG1965924-4). Positive results for these compounds should be considered estimated (J) in associated samples.

Blanks: Method blank WG1965765-1BLANK contained a trace of bis(2-ethylhexyl)phthalate (2.0 ug/L). FIELD BLANK contained a trace of phenol (2.3 ug/L). Positive results for phenol that are less than 5 times the highest blank level in associated samples. Positive results for bis(2-ethylhexyl)phthalate that are less than 10 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-nitrophenol were above the allowable maximum; 2 of 2 percent recoveries (%Rs) for 2,3,4,6-tetrachlorophenol were below QC limits, but not below 30%; and 2 of 2 for hexachlorocyclopentadiene were below QC limits and one below 30% for aqueous MS/MSD sample MW-6B. The “not detected” result for 2,3,4,6-tetrachlorophenol should be considered estimated (UJ) and the “not detected” result for hexachlorocyclopentadiene rejected, unusable (R) in sample MW-6B.

Laboratory Control Sample: The relative percent differences (RPDs) for 6 compounds (highlighted yellow on attached Form 3) were above the allowable maximum for aqueous samples WG1963737-2/3. The percent recoveries (%Rs) for target compounds were within QC limits, but the RPD for 3,3'-dichlorobenzidine was above the allowable maximum for aqueous samples WG1964120-2/3. The RPDs for 8 compounds (highlighted yellow on attached Form 3) were above the allowable maximum for aqueous samples WG1965765-2/3. Positive results for these compounds should be considered estimated (J) in associated aqueous samples.

The RPDs for target compounds were below the allowable, but 2 of 2 %Rs for p-chloro-m-cresol were above the QC limits for aqueous samples WG1964719-2/3. Positive results for p-chloro-m-cresol should be considered estimated, biased high (J+) in associated aqueous samples.

One of two %Rs for 2,3,4,6-tetrachlorophenol was below QC limits, but not below 30% for aqueous samples WG1963737-2/3. Positive results for 2,3,4,6-tetrachlorophenol should be considered estimated, biased low (J-) and "not detected" results estimated (UJ) in associated aqueous samples.

Two of two %Rs for hexachlorocyclopentadiene were below QC limits and one below 30% for aqueous samples WG1963737-2/3. Positive results for hexachlorocyclopentadiene 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-9B/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.

Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Alpha Geoscience
Project Name: RANCO MINE

Lab Number: L2447890
Project Number: 12123
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 (2FP)	S2 (PHL)	S3 (NBZ)	S4 (FBP)	S5 (TBP)	S6 (TPH)	TOT OUT
MW-3A (L2447890-01)	31	28	73	67	43	76	0
MW-6A (L2447890-02)	35	23	45	49	40	51	0
MW-6B (L2447890-03)	20*	18	43	45	20	51	1
MW-6C (L2447890-04)	30	28	59	53	40	58	0
MW-7A (L2447890-05)	20*	19	52	46	27	53	1
MW-7B (L2447890-06)	34	29	80	69	47	82	0
MW-7C (L2447890-07)	23	24	81	73	39	87	0
MW-8A (L2447890-08)	31	29	73	70	46	85	0
MW-8B (L2447890-09)	30	28	79	73	43	86	0
MW-8C2 (L2447890-10)	30	31	84	75	46	91	0
MW-9B (L2447890-11)	40	36	68	64	50	74	0
DUP (L2447890-12)	30	26	80	67	51	87	0
FIELD BLANK (L2447890-13RE)	48	36	61	65	58	70	0
FIELD BLANK (L2447890-13)	62	40	87	75	76	94	0
WG1963737-1BLANK	29	24	48	50	26	53	0
WG1963737-2LCS	39	29	50	50	46	52	0
WG1963737-3LCSD	49	36	59	63	64	58	0
MW-6BMS	29	25	48	53	38	55	0
MW-6BMSD	22	19	46	49	29	50	0
WG1964120-1BLANK	55	34	94	64	59	74	0
WG1964120-2LCS	54	38	87	62	57	71	0
WG1964120-3LCSD	57	46	85	61	69	74	0
WG1964719-1BLANK	51	41	75	74	76	88	0
WG1964719-2LCS	72	51	100	80	90	93	0
WG1964719-3LCSD	70	53	92	86	88	97	0
WG1965765-1BLANK	43	30	54	60	55	61	0
WG1965765-2LCS	51	37	64	65	65	65	0
WG1965765-3LCSD	31	29	55	59	41	63	0

QC LIMITS

(21-120) 2FP = 2-FLUOROPHENOL
(10-120) PHL = PHENOL-D6
(23-120) NBZ = NITROBENZENE-D5
(15-120) FBP = 2-FLUOROBIPHENYL
(10-120) TBP = 2,4,6-TRIBROMOPHENOL
(41-149) TPH = 4-TERPHENYL-D14

* Values outside of QC limits

FORM II NYTCL-8270-RVT



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1963737-2** Analysis Date : 08/27/24 04:15 File ID : 963732-2
 LCSD Sample ID : **WG1963737-3** Analysis Date : 08/27/24 04:40 File ID : 963732-3

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	10.	52	20	13.	64	21	40-140	30
3,3'-Dichlorobenzidine	20	11.	55	20	12.	60	9	40-140	30
2,4-Dinitrotoluene	20	10.	52	20	13.	66	24	48-143	30
2,6-Dinitrotoluene	20	11.	56	20	15.	75	29	40-140	30
4-Chlorophenyl phenyl ether	20	10.	51	20	12.	60	16	40-140	30
4-Bromophenyl phenyl ether	20	11.	54	20	14.	68	23	40-140	30
Bis(2-chloroisopropyl)ether	20	11.	54	20	13.	66	20	40-140	30
Bis(2-chloroethoxy)methane	20	11.	54	20	13.	67	21	40-140	30
Hexachlorocyclopentadiene	20	5.9	29 Q	20	7.0	35 Q	19	40-140	30
Isophorone	20	10.	53	20	14.	68	25	40-140	30
Nitrobenzene	20	10.	50	20	13.	63	23	40-140	30
NDPA/DPA	20	11.	56	20	14.	68	19	40-140	30
n-Nitrosodi-n-propylamine	20	11.	54	20	14.	68	23	29-132	30
Bis(2-ethylhexyl)phthalate	20	11.	54	20	13.	64	17	40-140	30
Butyl benzyl phthalate	20	13.	64	20	14.	72	12	40-140	30
Di-n-butylphthalate	20	11.	55	20	14.	68	21	40-140	30
Di-n-octylphthalate	20	12.	61	20	14.	69	12	40-140	30
Diethyl phthalate	20	11.	55	20	14.	71	25	40-140	30
Dimethyl phthalate	20	11.	57	20	15.	75	27	40-140	30
Biphenyl	20	8.6	43	20	11.	53	21	40-140	30
4-Chloroaniline	20	10.	50	20	13.	63	23	40-140	30
2-Nitroaniline	20	11.	56	20	15.	75	29	52-143	30
3-Nitroaniline	20	11.	54	20	14.	68	23	25-145	30
4-Nitroaniline	20	11.	55	20	13.	63	14	51-143	30
Dibenzofuran	20	10.	50	20	11.	57	13	40-140	30
1,2,4,5-Tetrachlorobenzene	20	7.9	39	20	9.4	47	19	2-134	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1963737-2** Analysis Date : 08/27/24 04:15 File ID : 963732-2
 LCSD Sample ID : **WG1963737-3** Analysis Date : 08/27/24 04:40 File ID : 963732-3

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	9.5	48	20	12.	60	22	39-129	30
2,4,6-Trichlorophenol	20	9.6	48	20	14.	72	40 Q	30-130	30
p-Chloro-m-cresol	20	11.	56	20	14.	73	26	23-97	30
2-Chlorophenol	20	10.	50	20	13.	64	25	27-123	30
2,4-Dichlorophenol	20	10.	50	20	13.	66	28	30-130	30
2,4-Dimethylphenol	20	7.9	39	20	10.	52	29	30-130	30
2-Nitrophenol	20	9.8	49	20	13.	66	30	30-130	30
4-Nitrophenol	20	5.2	26	20	8.3	41	45 Q	10-80	30
2,4-Dinitrophenol	20	12.	61	20	18.	89	37 Q	20-130	30
4,6-Dinitro-o-cresol	20	11.	55	20	16.	81	38 Q	20-164	30
Phenol	20	6.3	31	20	7.6	38	20	12-110	30
2-Methylphenol	20	9.6	48	20	12.	60	22	30-130	30
3-Methylphenol/4-Methylphenol	20	10.	51	20	13.	64	23	30-130	30
2,4,5-Trichlorophenol	20	11.	54	20	16.	78	36 Q	30-130	30
Carbazole	20	11.	57	20	13.	64	12	55-144	30
Atrazine	20	14.	68	20	17.	87	25	40-140	30
Benzaldehyde	20	8.5	42	20	10.	52	21	40-140	30
Caprolactam	20	9.2	46	20	11.	53	14	10-130	30
2,3,4,6-Tetrachlorophenol	20	9.3	47	20	15.	73	43 Q	40-140	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964120-2** Analysis Date : 08/27/24 10:50 File ID : 964120-2
 LCSD Sample ID : **WG1964120-3** Analysis Date : 08/27/24 11:14 File ID : 964120-3

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	16.	78	20	15.	76	3	40-140	30
3,3'-Dichlorobenzidine	20	10.	52	20	20.	98	61 Q	40-140	30
2,4-Dinitrotoluene	20	14.	70	20	15.	74	6	48-143	30
2,6-Dinitrotoluene	20	14.	71	20	16.	80	12	40-140	30
4-Chlorophenyl phenyl ether	20	14.	70	20	15.	74	6	40-140	30
4-Bromophenyl phenyl ether	20	13.	66	20	15.	75	13	40-140	30
Bis(2-chloroisopropyl)ether	20	16.	80	20	16.	78	3	40-140	30
Bis(2-chloroethoxy)methane	20	16.	78	20	16.	82	5	40-140	30
Hexachlorocyclopentadiene	20	9.2	46	20	9.1	45	2	40-140	30
Isophorone	20	17.	84	20	18.	92	9	40-140	30
Nitrobenzene	20	17.	86	20	16.	81	6	40-140	30
NDPA/DPA	20	12.	62	20	14.	72	15	40-140	30
n-Nitrosodi-n-propylamine	20	18.	89	20	19.	95	7	29-132	30
Bis(2-ethylhexyl)phthalate	20	18.	88	20	18.	93	6	40-140	30
Butyl benzyl phthalate	20	17.	87	20	21.	104	18	40-140	30
Di-n-butylphthalate	20	18.	89	20	19.	97	9	40-140	30
Di-n-octylphthalate	20	18.	93	20	20.	99	6	40-140	30
Diethyl phthalate	20	16.	78	20	18.	92	16	40-140	30
Dimethyl phthalate	20	15.	76	20	15.	76	0	40-140	30
Biphenyl	20	13.	66	20	14.	68	3	40-140	30
4-Chloroaniline	20	14.	71	20	14.	71	0	40-140	30
2-Nitroaniline	20	16.	80	20	14.	71	12	52-143	30
3-Nitroaniline	20	15.	77	20	17.	84	9	25-145	30
4-Nitroaniline	20	16.	82	20	16.	82	0	51-143	30
Dibenzofuran	20	14.	71	20	15.	74	4	40-140	30
1,2,4,5-Tetrachlorobenzene	20	12.	60	20	12.	62	3	2-134	30



Form 3

Semivolatiles

Client	: Alpha Geoscience	Lab Number	: L2447890
Project Name	: RANCO MINE	Project Number	: 12123
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1964120-2	Analysis Date	: 08/27/24 10:50
LCSD Sample ID	: WG1964120-3	Analysis Date	: 08/27/24 11:14
		File ID	: 964120-2
		File ID	: 964120-3

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	15.	76	20	16.	79	4	39-129	30
2,4,6-Trichlorophenol	20	14.	68	20	16.	78	14	30-130	30
p-Chloro-m-cresol	20	18.	89	20	18.	88	1	23-97	30
2-Chlorophenol	20	13.	65	20	14.	73	12	27-123	30
2,4-Dichlorophenol	20	14.	72	20	15.	77	7	30-130	30
2,4-Dimethylphenol	20	12.	61	20	14.	73	18	30-130	30
2-Nitrophenol	20	14.	70	20	16.	79	12	30-130	30
4-Nitrophenol	20	13.	64	20	14.	72	12	10-80	30
2,4-Dinitrophenol	20	14.	71	20	15.	77	8	20-130	30
4,6-Dinitro-o-cresol	20	16.	78	20	17.	85	9	20-164	30
Phenol	20	8.7	43	20	9.5	47	9	12-110	30
2-Methylphenol	20	13.	67	20	14.	72	7	30-130	30
3-Methylphenol/4-Methylphenol	20	13.	67	20	15.	77	14	30-130	30
2,4,5-Trichlorophenol	20	14.	70	20	15.	76	8	30-130	30
Carbazole	20	16.	78	20	16.	80	3	55-144	30
Atrazine	20	14.	72	20	15.	75	4	40-140	30
Benzaldehyde	20	14.	69	20	14.	72	4	40-140	30
Caprolactam	20	9.6	48	20	13.	63	27	10-130	30
2,3,4,6-Tetrachlorophenol	20	15.	75	20	16.	80	6	40-140	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1964719-2** Analysis Date : 08/28/24 15:12 File ID : 964721-2
 LCSD Sample ID : **WG1964719-3** Analysis Date : 08/28/24 15:37 File ID : 964721-3

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	18.	91	20	19.	94	3	40-140	30
3,3'-Dichlorobenzidine	20	18.	90	20	19.	96	6	40-140	30
2,4-Dinitrotoluene	20	18.	89	20	19.	93	4	48-143	30
2,6-Dinitrotoluene	20	18.	90	20	20.	101	12	40-140	30
4-Chlorophenyl phenyl ether	20	18.	92	20	19.	94	2	40-140	30
4-Bromophenyl phenyl ether	20	17.	87	20	20.	98	12	40-140	30
Bis(2-chloroisopropyl)ether	20	16.	82	20	15.	77	6	40-140	30
Bis(2-chloroethoxy)methane	20	20.	99	20	19.	96	3	40-140	30
Hexachlorocyclopentadiene	20	12.	58	20	13.	66	13	40-140	30
Isophorone	20	22.	109	20	22.	108	1	40-140	30
Nitrobenzene	20	18.	90	20	20.	98	9	40-140	30
NDPA/DPA	20	19.	97	20	20.	100	3	40-140	30
n-Nitrosodi-n-propylamine	20	21.	107	20	22.	108	1	29-132	30
Bis(2-ethylhexyl)phthalate	20	21.	105	20	20.	103	2	40-140	30
Butyl benzyl phthalate	20	21.	106	20	23.	116	9	40-140	30
Di-n-butylphthalate	20	21.	107	20	23.	113	5	40-140	30
Di-n-octylphthalate	20	21.	104	20	21.	106	2	40-140	30
Diethyl phthalate	20	20.	101	20	20.	101	0	40-140	30
Dimethyl phthalate	20	20.	102	20	20.	98	4	40-140	30
Biphenyl	20	17.	84	20	18.	88	5	40-140	30
4-Chloroaniline	20	16.	81	20	16.	79	3	40-140	30
2-Nitroaniline	20	19.	95	20	19.	93	2	52-143	30
3-Nitroaniline	20	19.	95	20	19.	94	1	25-145	30
4-Nitroaniline	20	17.	84	20	20.	101	18	51-143	30
Dibenzofuran	20	17.	85	20	18.	92	8	40-140	30
1,2,4,5-Tetrachlorobenzene	20	16.	78	20	16.	83	6	2-134	30



Form 3

Semivolatiles

Client	: Alpha Geoscience	Lab Number	: L2447890
Project Name	: RANCO MINE	Project Number	: 12123
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1964719-2	Analysis Date	: 08/28/24 15:12
LCS Sample ID	: WG1964719-3	Analysis Date	: 08/28/24 15:37
		File ID	: 964721-2
		File ID	: 964721-3

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.	98	20	19.	96	2	39-129	30
2,4,6-Trichlorophenol	20	20.	99	20	21.	104	5	30-130	30
p-Chloro-m-cresol	20	22.	112 Q	20	22.	110 Q	2	23-97	30
2-Chlorophenol	20	18.	93	20	18.	90	3	27-123	30
2,4-Dichlorophenol	20	20.	99	20	20.	100	1	30-130	30
2,4-Dimethylphenol	20	17.	85	20	17.	87	2	30-130	30
2-Nitrophenol	20	18.	91	20	20.	99	8	30-130	30
4-Nitrophenol	20	14.	68	20	13.	67	1	10-80	30
2,4-Dinitrophenol	20	18.	92	20	17.	84	9	20-130	30
4,6-Dinitro-o-cresol	20	21.	106	20	22.	109	3	20-164	30
Phenol	20	12.	58	20	11.	55	5	12-110	30
2-Methylphenol	20	18.	91	20	18.	90	1	30-130	30
3-Methylphenol/4-Methylphenol	20	18.	90	20	19.	96	6	30-130	30
2,4,5-Trichlorophenol	20	21.	105	20	19.	97	8	30-130	30
Carbazole	20	19.	94	20	20.	98	4	55-144	30
Atrazine	20	16.	79	20	16.	82	4	40-140	30
Benzaldehyde	20	16.	82	20	17.	84	2	40-140	30
Caprolactam	20	6.4	32	20	6.5	32	0	10-130	30
2,3,4,6-Tetrachlorophenol	20	20.	101	20	21.	104	3	40-140	30



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1965765-2** Analysis Date : 08/30/24 08:33 File ID : 965765-2
 LCSD Sample ID : **WG1965765-3** Analysis Date : 08/30/24 08:59 File ID : 965765-3

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	12.	60	11	40-140	30
3,3'-Dichlorobenzidine	20	12.	62	20	12.	60	3	40-140	30
2,4-Dinitrotoluene	20	12.	63	20	12.	58	8	48-143	30
2,6-Dinitrotoluene	20	14.	69	20	13.	65	6	40-140	30
4-Chlorophenyl phenyl ether	20	13.	66	20	13.	64	3	40-140	30
4-Bromophenyl phenyl ether	20	14.	68	20	13.	65	5	40-140	30
Bis(2-chloroisopropyl)ether	20	16.	79	20	14.	72	9	40-140	30
Bis(2-chloroethoxy)methane	20	14.	69	20	12.	61	12	40-140	30
Hexachlorocyclopentadiene	20	11.	54	20	9.8	49	10	40-140	30
Isophorone	20	13.	64	20	12.	60	6	40-140	30
Nitrobenzene	20	13.	66	20	12.	59	11	40-140	30
NDPA/DPA	20	13.	67	20	13.	65	3	40-140	30
n-Nitrosodi-n-propylamine	20	14.	70	20	13.	64	9	29-132	30
Bis(2-ethylhexyl)phthalate	20	14.	71	20	14.	68	4	40-140	30
Butyl benzyl phthalate	20	15.	77	20	15.	76	1	40-140	30
Di-n-butylphthalate	20	14.	71	20	14.	69	3	40-140	30
Di-n-octylphthalate	20	15.	74	20	14.	71	4	40-140	30
Diethyl phthalate	20	14.	70	20	14.	69	1	40-140	30
Dimethyl phthalate	20	14.	68	20	13.	64	6	40-140	30
Biphenyl	20	12.	59	20	11.	54	9	40-140	30
4-Chloroaniline	20	12.	60	20	12.	58	3	40-140	30
2-Nitroaniline	20	13.	64	20	12.	60	6	52-143	30
3-Nitroaniline	20	12.	61	20	12.	58	5	25-145	30
4-Nitroaniline	20	12.	60	20	12.	60	0	51-143	30
Dibenzofuran	20	13.	64	20	12.	60	6	40-140	30
1,2,4,5-Tetrachlorobenzene	20	12.	58	20	11.	54	7	2-134	30



Form 3

Semivolatiles

Client	: Alpha Geoscience	Lab Number	: L2447890
Project Name	: RANCO MINE	Project Number	: 12123
Matrix (Level)	: WATER (LOW)		
LCS Sample ID	: WG1965765-2	Analysis Date	: 08/30/24 08:33
LCS Sample ID	: WG1965765-3	Analysis Date	: 08/30/24 08:59
		File ID	: 965765-2
		File ID	: 965765-3

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	13.	65	20	12.	58	11	39-129	30
2,4,6-Trichlorophenol	20	14.	68	20	7.6	38	57 Q	30-130	30
p-Chloro-m-cresol	20	14.	70	20	12.	62	12	23-97	30
2-Chlorophenol	20	13.	65	20	9.4	47	32 Q	27-123	30
2,4-Dichlorophenol	20	13.	66	20	9.8	49	30	30-130	30
2,4-Dimethylphenol	20	11.	55	20	10.	51	8	30-130	30
2-Nitrophenol	20	13.	65	20	9.4	47	32 Q	30-130	30
4-Nitrophenol	20	8.5	42	20	3.8	19	75 Q	10-80	30
2,4-Dinitrophenol	20	18.	90	20	12.	62	37 Q	20-130	30
4,6-Dinitro-o-cresol	20	16.	81	20	10.	50	47 Q	20-164	30
Phenol	20	7.6	38	20	5.9	30	24	12-110	30
2-Methylphenol	20	12.	62	20	11.	53	16	30-130	30
3-Methylphenol/4-Methylphenol	20	12.	59	20	11.	54	9	30-130	30
2,4,5-Trichlorophenol	20	15.	73	20	9.2	46	45 Q	30-130	30
Carbazole	20	13.	64	20	13.	63	2	55-144	30
Atrazine	20	17.	86	20	17.	84	2	40-140	30
Benzaldehyde	20	11.	55	20	9.9	50	10	40-140	30
Caprolactam	20	9.6	48	20	10.	50	4	10-130	30
2,3,4,6-Tetrachlorophenol	20	15.	74	20	6.8	34 Q	74 Q	40-140	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-6B**
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1963737-4
 Matrix Spike Dup : WG1963737-5

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 11:28
 MS Analysis Date : 08/27/24 10:37
 MSD Analysis Date : 08/27/24 11:02

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	10.	50	20	9.9	50	1	40-140	30
3,3'-Dichlorobenzidine	ND	20	11.	55	20	11.	55	0	40-140	30
2,4-Dinitrotoluene	ND	20	11.	55	20	10.	50	10	48-143	30
2,6-Dinitrotoluene	ND	20	12.	60	20	12.	60	0	40-140	30
4-Chlorophenyl phenyl ether	ND	20	11.	55	20	10.	50	10	40-140	30
4-Bromophenyl phenyl ether	ND	20	11.	55	20	11.	55	0	40-140	30
Bis(2-chloroisopropyl)ether	ND	20	11.	55	20	10.	50	10	40-140	30
Bis(2-chloroethoxy)methane	ND	20	11.	55	20	10.	50	10	40-140	30
Hexachlorocyclopentadiene	ND	20	6.4J	32 Q	20	5.8J	29 Q	10	40-140	30
Isophorone	ND	20	11.	55	20	10.	50	10	40-140	30
Nitrobenzene	ND	20	10.	50	20	9.9	50	1	40-140	30
NDPA/DPA	ND	20	12.	60	20	11.	55	9	40-140	30
n-Nitrosodi-n-propylamine	ND	20	11.	55	20	10.	50	10	29-132	30
Bis(2-ethylhexyl)phthalate	ND	20	12.	60	20	12.	60	0	40-140	30
Butyl benzyl phthalate	ND	20	14.	70	20	13.	65	7	40-140	30
Di-n-butylphthalate	ND	20	12.	60	20	11.	55	9	40-140	30
Di-n-octylphthalate	ND	20	13.	65	20	13.	65	0	40-140	30
Diethyl phthalate	ND	20	12.	60	20	12.	60	0	40-140	30
Dimethyl phthalate	ND	20	12.	60	20	12.	60	0	40-140	30
Biphenyl	ND	20	9.2	46	20	8.6	43	7	40-140	30
4-Chloroaniline	ND	20	10.	50	20	10.	50	0	40-140	30
2-Nitroaniline	ND	20	12.	60	20	11.	55	9	52-143	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-6B**
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1963737-4
 Matrix Spike Dup : WG1963737-5

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 11:28
 MS Analysis Date : 08/27/24 10:37
 MSD Analysis Date : 08/27/24 11:02

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	12.	60	20	11.	55	9	25-145	30
4-Nitroaniline	ND	20	12.	60	20	11.	55	9	51-143	30
Dibenzofuran	ND	20	10.	50	20	9.9	50	1	40-140	30
1,2,4,5-Tetrachlorobenzene	ND	20	8.4J	42	20	8.2J	41	2	2-134	30
Acetophenone	ND	20	9.9	50	20	9.2	46	7	39-129	30
2,4,6-Trichlorophenol	ND	20	7.8	39	20	6.1	31	24	30-130	30
p-Chloro-m-cresol	ND	20	12.	60	20	9.9	50	19	23-97	30
2-Chlorophenol	ND	20	8.8	44	20	6.7	34	27	27-123	30
2,4-Dichlorophenol	ND	20	8.8	44	20	6.7	34	27	30-130	30
2,4-Dimethylphenol	ND	20	7.2	36	20	7.6	38	5	30-130	30
2-Nitrophenol	ND	20	8.6J	43	20	6.2J	31	32 Q	30-130	30
4-Nitrophenol	ND	20	3.8J	19	20	3.1J	16	20	10-80	30
2,4-Dinitrophenol	ND	20	12.J	60	20	12.J	60	0	20-130	30
4,6-Dinitro-o-cresol	ND	20	10.	50	20	9.4J	47	6	20-164	30
Phenol	0.82J	20	6.2	31	20	5.0	25	21	12-110	30
2-Methylphenol	ND	20	9.1	46	20	8.4	42	8	30-130	30
3-Methylphenol/4-Methylphenol	ND	20	9.5	48	20	8.6	43	10	30-130	30
2,4,5-Trichlorophenol	ND	20	8.9	45	20	6.9	35	25	30-130	30
Carbazole	ND	20	12.	60	20	11.	55	9	55-144	30
Atrazine	ND	20	14.	70	20	13.	65	7	40-140	30
Benzaldehyde	ND	20	8.6	43	20	8.0	40	7	40-140	30
Caprolactam	ND	20	9.1J	46	20	8.8J	44	3	10-130	30



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : MW-6B
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1963737-4
 Matrix Spike Dup : WG1963737-5

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 11:28
 MS Analysis Date : 08/27/24 10:37
 MSD Analysis Date : 08/27/24 11:02

Parameter	Sample Conc. (ug/l)	Matrix Spike Sample			%R	Matrix Spike Duplicate			RPD	Recovery Limits	RPD Limit	
		Spike Added (ug/l)	Spike Conc. (ug/l)			Spike Added (ug/l)	Spike Conc. (ug/l)					
2,3,4,6-Tetrachlorophenol	ND	20	7.3	37	Q	20	6.1	31	Q	18	40-140	30



Results Summary

Form 1

Semivolatile Organics by GC/MS

Client : Alpha Geoscience	Lab Number : L2447890
Project Name : RANCO MINE	Project Number : 12123
Lab ID : WG1965765-1	Date Collected : NA
Client ID : WG1965765-1BLANK	Date Received : NA
Sample Location :	Date Analyzed : 08/30/24 08:08
Sample Matrix : WATER	Date Extracted : 08/29/24
Analytical Method : 1,8270E	Dilution Factor : 1
Lab File ID : 965765-1	Analyst : SMZ
Sample Amount : 100 ml	Instrument ID : SV107
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	
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	2.0	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 : WG1965765-1
 Client ID : **WG1965765-1BLANK**
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8270E
 Lab File ID : 965765-1
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/30/24 08:08
 Date Extracted : 08/29/24
 Dilution Factor : 1
 Analyst : SMZ
 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
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	: L2447890
Project Name	: RANCO MINE	Project Number	: 12123
Lab ID	: WG1965765-1	Date Collected	: NA
Client ID	: WG1965765-1BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 08/30/24 08:08
Sample Matrix	: WATER	Date Extracted	: 08/29/24
Analytical Method	: 1,8270E	Dilution Factor	: 1
Lab File ID	: 965765-1	Analyst	: SMZ
Sample Amount	: 100 ml	Instrument ID	: SV107
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



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : SV112
Calibration dates : 06/25/24 20:18 06/26/24 07:31

Lab Number : L2447890
Project Number : 12123
Ical Ref : ICAL21241

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =AP9L4.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	0.562	0.547	0.668	0.671	0.658	0.715	0.737	0.691	0.666	0.657	9.69
3) T Pyridine	0.765	0.804	1.096	1.064	1.020	1.187	1.214	1.164	1.068	1.043	15.30
4) S 2-Fluorophenol	1.042	0.902	1.137	1.062	1.020	1.069	1.112	1.061	1.048	1.050	6.30
5) T Aniline	2.034	1.689	1.779	1.844	1.753	1.761	1.854	1.790	1.794	1.811	5.35
6) T 2-Chlorophenol	1.446	1.123	1.293	1.241	1.188	1.224	1.274	1.223	1.242	1.251	7.06
7) S Phenol-d6	1.528	1.195	1.365	1.305	1.289	1.368	1.414	1.357	1.387	1.357	6.75
8) T Phenol	1.817	1.428	1.559	1.538	1.527	1.566	1.627	1.557	1.574	1.577	6.62
9) T bis(2-Chloroethyl)ether	1.421	1.058	1.219	1.151	1.143	1.120	1.163	1.115	1.115	1.167	8.96
10) T 1,3-Dichlorobenzene	1.825	1.427	1.538	1.518	1.438	1.487	1.482	1.424	1.436	1.508	8.33
11) T 1,4-Dichlorobenzene	1.923	1.640	1.694	1.536	1.486	1.486	1.516	1.438	1.453	1.575	9.88
12) T 1,2-Dichlorobenzene	1.745	1.340	1.594	1.450	1.424	1.428	1.446	1.404	1.447	1.475	8.21
13) T Benzyl alcohol	0.853	0.833	0.903	0.958	0.947	0.948	1.013	1.009	1.039	0.945	7.55
14) T bis(2-chloroisopropyl)ether	1.542	1.444	1.529	1.423	1.507	1.427	1.472	1.462	1.466	1.475	2.91
15) T 2-Methylphenol	1.068	0.979	1.057	1.054	1.005	1.051	1.101	1.074	1.118	1.056	4.08
16) T Hexachloroethane	0.605	0.534	0.540	0.589	0.515	0.542	0.556	0.550	0.587	0.558	5.34
17) T n-Nitrosodi-n-propylamine	0.857	0.797	0.848	0.850	0.863	0.844	0.894	0.895	0.940	0.865	4.65
18) T 3-Methylphenol/4-Methylphenol	1.109	1.056	1.147	1.130	1.122	1.166	1.205	1.181	1.237	1.150	4.72
19) S Nitrobenzene-d5	1.364	1.174	1.284	1.255	1.256	1.289	1.357	1.316	1.350	1.294	4.73
20) T Nitrobenzene	1.374	1.167	1.255	1.249	1.268	1.288	1.348	1.313	1.342	1.289	4.92
21) T Isophorone	2.526	2.023	2.282	2.274	2.361	2.267	2.412	2.399	2.410	2.328	6.09
22) T 2-Nitrophenol	0.572	0.455	0.543	0.529	0.574	0.574	0.614	0.643	0.665	0.574	10.96
23) T 2,4-Dimethylphenol	1.050	0.967	1.174	1.119	1.111	1.004	1.135	1.146	1.205	1.101	7.16
24) T bis(2-Chloroethoxy)methane	1.755	1.546	1.604	1.513	1.557	1.463	1.547	1.531	1.587	1.567	5.19
25) T 2,4-Dichlorophenol	1.200	1.008	1.072	1.112	1.136	1.123	1.219	1.218	1.285	1.153	7.42
26) T 1,2,4-Trichlorobenzene	1.821	1.484	1.450	1.478	1.378	1.332	1.381	1.373	1.442	1.460	9.94
27) I IS2_1,4-Dichlorobenzene-d4	-----ISTD-----										
28) T Benzaldehyde	1.040	0.972	1.109	1.072	1.093	1.082	1.162	1.162	1.149	1.094	5.70
29) T Acetophenone	1.672	1.587	1.917	1.903	1.905	1.998	2.059	2.064	2.024	1.903	8.87
30) T m-Toluidine	1.624	1.422	1.775	1.781	1.812	1.920	2.030	2.045	2.045	1.828	11.53
31) T 2-Chloroaniline	1.694	1.374	1.765	1.690	1.753	1.785	1.883	1.869	1.863	1.742	8.93
32) I IS3_1,4-Dichlorobenzene-d4	-----ISTD-----										
33) T 1,4-Dioxane		0.421	0.595	0.567	0.467	0.415	0.448	0.424	0.426	0.470	15.01
34) T n-Decane	1.220	0.970	1.192	1.255	1.127	1.060	1.191	1.145	1.149	1.145	7.58
35) I IS1_Naphthalene-d8	-----ISTD-----										
36) T Naphthalene	1.266	1.035	1.152	1.087	1.005	0.997	1.043	0.966	0.888	1.049	10.49



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Calibration dates : 06/25/24 20:18 06/26/24 07:31

Lab Number : L2447890
 Project Number : 12123
 Ical Ref : ICAL21241

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =AP9L4.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) T Benzoic Acid					0.129	0.163	0.217	0.243	0.251	*L	0.9992
38) T 4-Chloroaniline	0.080	0.126	0.116	0.116	0.123	0.117	0.126	0.128	0.129	0.118	12.79
39) T Hexachlorobutadiene	0.283	0.225	0.275	0.254	0.226	0.226	0.241	0.236	0.246	0.246	8.74
40) T p-Chloro-m-cresol	0.262	0.248	0.265	0.272	0.279	0.270	0.296	0.299	0.302	0.277	6.77
41) T 2-Methylnaphthalene	0.846	0.703	0.755	0.742	0.670	0.650	0.700	0.683	0.670	0.713	8.47
42) T 1-Methylnaphthalene	0.316	0.233	0.258	0.237	0.231	0.218	0.236	0.235	0.243	0.245	11.70
43) T Hexachlorocyclopentadiene	0.245	0.228	0.273	0.253	0.241	0.226	0.253	0.261	0.279	0.251	7.32
44) T 2,4,6-Trichlorophenol	0.256	0.222	0.245	0.252	0.255	0.249	0.272	0.275	0.281	0.256	7.06
45) T 2,4,5-Trichlorophenol	0.242	0.215	0.272	0.252	0.257	0.258	0.278	0.287	0.301	0.262	9.81
46) S 2-Fluorobiphenyl	1.108	0.906	0.959	0.931	0.893	0.820	0.871	0.845	0.809	0.904	10.04
47) T 2-Chloronaphthalene	0.947	0.735	0.788	0.772	0.738	0.697	0.735	0.717	0.699	0.759	10.11
48) T 2-Nitroaniline	0.189	0.160	0.201	0.186	0.193	0.191	0.219	0.231	0.235	0.200	11.96
49) T 1,4-Dinitrobenzene	0.083	0.069	0.090	0.093	0.097	0.095	0.111	0.122	0.125	0.098	18.43
50) T 1,3-Dinitrobenzene	0.094	0.088	0.105	0.107	0.111	0.110	0.126	0.138	0.147	0.114	17.21
51) T Dimethyl phthalate	1.140	0.882	1.009	0.933	0.924	0.827	0.876	0.885	0.829	0.923	10.69
52) T Acenaphthylene	1.278	1.043	1.196	1.115	1.136	1.059	1.125	1.115	1.011	1.120	7.23
53) T 2,6-Dinitrotoluene	0.173	0.138	0.163	0.165	0.177	0.163	0.181	0.195	0.199	0.173	10.72
54) T 1,2-Dinitrobenzene			0.062	0.068	0.072	0.070	0.080	0.088	0.091	0.076	14.13
55) I IS2_Naphthalene-d8	-----ISTD-----										
56) T a-Terpeneol	0.269	0.222	0.274	0.268	0.264	0.279	0.299	0.310	0.310	0.277	9.94
57) T 3-Chloroaniline		0.104	0.168	0.149	0.143	0.149	0.158	0.163	0.168	0.150	13.96
58) T 2,6-Dichlorophenol	0.313	0.261	0.306	0.302	0.317	0.335	0.366	0.365	0.371	0.326	11.19
59) T 1-chloro-2-nitrobenzene	0.113	0.111	0.143	0.146	0.133	0.146	0.162	0.167	0.168	0.143	14.67
60) T Caprolactam				0.126	0.131	0.155	0.174	0.178	0.183	*L	0.9990
61) T 1,2,4,5-Tetrachlorobenzene	0.481	0.431	0.503	0.503	0.461	0.474	0.493	0.488	0.478	0.479	4.71
62) T Biphenyl	1.095	0.927	1.090	1.060	1.016	1.018	1.066	1.031	0.935	1.026	5.96
63) I IS1_Acenaphthene-d10	-----ISTD-----										
64) T 3-Nitroaniline	0.252	0.237	0.287	0.294	0.299	0.308	0.339	0.336	0.337	0.299	12.23
65) T Acenaphthene	1.314	1.113	1.226	1.123	1.053	1.036	1.084	1.054	1.029	1.115	8.64
66) T 2,4-Dinitrophenol			0.079	0.095	0.133	0.147	0.168	0.191	0.195	*Q	0.9985
67) T Dibenzofuran	2.211	1.799	2.086	1.945	1.751	1.726	1.777	1.698	1.542	1.837	11.29
68) T 2,4-Dinitrotoluene	0.319	0.294	0.352	0.365	0.387	0.389	0.418	0.459	0.468	0.383	15.30
69) T 4-Nitrophenol	0.317	0.249	0.284	0.274	0.264	0.286	0.308	0.313	0.311	0.290	8.32
70) T 2,3,5,6-Tetrachlorophenol	0.349	0.273	0.359	0.360	0.382	0.387	0.416	0.430	0.434	0.377	13.18
71) T 2,3,4,6-Tetrachlorophenol	0.327	0.272	0.371	0.360	0.389	0.365	0.400	0.421	0.424	0.370	12.93
72) T Diethyl phthalate	1.798	1.445	1.599	1.494	1.494	1.341	1.413	1.434	1.361	1.487	9.42



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : SV112
Calibration dates : 06/25/24 20:18 06/26/24 07:31
Lab Number : L2447890
Project Number : 12123
Ical Ref : ICAL21241

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =AP9L4.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 Fluorene	1.722	1.358	1.548	1.423	1.385	1.344	1.395	1.386	1.317	1.431	8.89
74) T 4-Chlorophenyl-phenylether	0.957	0.826	0.818	0.791	0.738	0.691	0.715	0.740	0.741	0.780	10.31
75) T 4-Nitroaniline	0.243	0.230	0.295	0.325	0.330	0.334	0.361	0.368	0.344	0.314	15.56
76) T 4,6-Dinitro-o-cresol		0.090	0.161	0.181	0.205	0.204	0.232	0.261	0.263	*L	0.9966
77) T NDPA/DPA	1.445	1.148	1.297	1.268	1.198	1.152	1.215	1.205	1.148	1.231	7.78
78) T Azobenzene	1.524	1.129	1.373	1.336	1.302	1.260	1.305	1.296	1.220	1.305	8.30
79) S 2,4,6-Tribromophenol			0.253	0.239	0.249	0.236	0.255	0.277	0.288	0.257	7.47
80) T 4-Bromophenyl-phenylether	0.639	0.500	0.517	0.492	0.471	0.440	0.462	0.485	0.490	0.500	11.37
81) T Hexachlorobenzene	0.879	0.616	0.680	0.640	0.584	0.529	0.554	0.574	0.592	0.628	16.66
82) T Pentachlorophenol			0.259	0.272	0.303	0.302	0.345	0.384	0.391	0.322	16.23
83) I IS2_Acenaphthene-d10	-----ISTD-----										
84) T Dichloran				0.160	0.184	0.198	0.225	0.256	0.269	*L	0.9964
85) T Pentachloronitrobenzene			0.200	0.205	0.213	0.226	0.246	0.272	0.282	0.235	13.89
86) I IS3_Acenaphthene-d10	-----ISTD-----										
87) T Atrazine	0.389	0.299	0.438	0.468	0.450	0.397	0.506	0.509	0.516	0.441	16.04
88) I IS1_Phenanthrene-d10	-----ISTD-----										
89) T Phenanthrene	1.320	1.071	1.173	1.090	1.015	1.012	1.045	0.947	0.850	1.058	12.62
90) T Anthracene	1.256	1.017	1.087	1.043	1.001	0.996	1.069	0.971	0.876	1.035	9.97
91) T Carbazole	1.052	0.896	1.012	0.948	0.942	0.948	1.001	0.904	0.827	0.948	7.18
92) T Di-n-butylphthalate	1.109	0.955	1.058	1.048	1.078	0.981	1.100	1.066	0.910	1.034	6.68
93) T Fluoranthene	1.499	1.186	1.326	1.251	1.214	1.178	1.266	1.147	0.982	1.228	11.39
94) T Benzidine	0.637	0.494	0.641	0.646	0.698	0.700	0.797	0.760	0.702	0.675	12.87
95) T Pyrene	1.601	1.214	1.406	1.321	1.304	1.289	1.345	1.209	1.024	1.301	12.03
96) S 4-Terphenyl-d14	1.228	0.991	1.112	1.049	1.046	0.959	1.026	0.978	0.869	1.029	9.83
97) T Butyl benzyl phthalate	0.487	0.361	0.434	0.413	0.452	0.421	0.491	0.535	0.524	0.458	12.35
98) I IS2_Phenanthrene-d10	-----ISTD-----										
99) T Diphenamid	0.509	0.383	0.468	0.508	0.502	0.532	0.578	0.597	0.558	0.515	12.43
100) I IS3_Phenanthrene-d10	-----ISTD-----										
101) T n-Octadecane	0.312	0.243	0.299	0.318	0.319	0.280	0.358	0.350	0.355	0.315	12.02
102) T Parathion		0.054	0.076	0.080	0.077	0.074	0.098	0.109	0.122	*Q	0.9982
103) T 3,3'-Dimethylbenzidine			0.593	0.660	0.700	0.676	0.865	0.857	0.806	*L	0.9971
104) I IS1_Chrysene-d12	-----ISTD-----										
105) T Benzo[a]anthracene	1.601	1.212	1.376	1.301	1.272	1.244	1.317	1.203	1.034	1.284	11.88
106) T 3,3'-Dichlorobenzidine	0.484	0.379	0.450	0.441	0.460	0.466	0.523	0.512	0.497	0.468	9.31
107) T Chrysene	1.675	1.240	1.402	1.329	1.232	1.205	1.249	1.091	0.910	1.259	16.66
108) T bis(2-Ethylhexyl)phthalate	0.620	0.525	0.597	0.603	0.661	0.610	0.702	0.753	0.677	0.639	10.51



Initial Calibration Summary

Form 6

Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : SV112
Calibration dates : 06/25/24 20:18 06/26/24 07:31
Lab Number : L2447890
Project Number : 12123
Ical Ref : ICAL21241

Calibration Files

L1 =AP9L1.D L2 =AP9L2.D L3 =AP9L3.D L4 =AP9L4.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	Di-n-octylphthalate	0.924	0.768	0.917	0.888	1.018	0.992	1.151	1.177	0.974	0.979	13.03
110) T	Benzo(b)fluoranthene	1.582	1.244	1.467	1.388	1.283	1.299	1.315	1.163	1.116	1.317	11.01
111) T	Benzo(k)fluoranthene	1.265	1.114	1.303	1.202	1.228	1.278	1.375	1.175	0.881	1.202	11.84
112) T	Benzo(a)pyrene	1.261	1.054	1.246	1.174	1.126	1.174	1.245	1.108	0.956	1.149	8.76
113) I	IS1_Perylene-d12	-----ISTD-----										
114) T	Indeno(1,2,3-cd)pyrene	1.192	0.988	1.118	1.057	1.007	1.143	1.162	1.212	1.186	1.118	7.36
115) T	Dibenzo[a,h]anthracene	1.040	0.931	1.151	1.098	1.025	1.080	1.151	1.109	1.027	1.068	6.60
116) T	Benzo(g,h,i)perylene	1.205	1.041	1.145	1.079	1.012	1.062	1.104	1.049	1.001	1.078	6.06



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 : L2447890
 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 : L2447890
 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 : L2447890
 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 : L2447890
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



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV107
 Lab File ID : ABN0826
 Sample No : WG1964132-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 00:01
 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	135	0
n-Nitrosodimethylamine	0.71	0.701	-	1.3	20	133	0
Pyridine	1.086	1.117	-	-2.9	20	126	0
2-Fluorophenol	1.08	1.099	-	-1.8	20	137	0
Aniline	1.765	1.597	-	9.5	20	131	0
2-Chlorophenol	1.294	1.231	-	4.9	20	135	0
Phenol-d6	1.413	1.331	-	5.8	20	135	0
Phenol	1.566	1.433	-	8.5	20	133	0
Bis(2-chloroethyl)ether	1.247	1.106	-	11.3	20	134	0
1,3-Dichlorobenzene	1.587	1.46	-	8	20	134	0
1,4-Dichlorobenzene	1.599	1.471	-	8	20	134	0
1,2-Dichlorobenzene	1.562	1.404	-	10.1	20	133	0
Benzyl alcohol	1.01	0.872	-	13.7	20	128	0
Bis(2-chloroisopropyl)ethe	1.617	1.59	-	1.7	20	147	0
2-Methylphenol	1.126	1.021	-	9.3	20	138	0
Hexachloroethane	0.563	0.521	-	7.5	20	130	0
n-Nitrosodi-n-propylamine	0.862	0.741	-	14	20	129	0
3-Methylphenol/4-Methylphe	1.241	1.108	-	10.7	20	137	0
Nitrobenzene-d5	1.368	1.188	-	13.2	20	129	0
Nitrobenzene	1.312	1.158	-	11.7	20	130	0
Isophorone	2.344	2.004	-	14.5	20	128	0
2-Nitrophenol	0.667	0.628	-	5.8	20	143	0
2,4-Dimethylphenol	1.081	1.059	-	2	20	215	0
Bis(2-chloroethoxy)methane	1.585	1.365	-	13.9	20	134	0
2,4-Dichlorophenol	1.18	1.073	-	9.1	20	135	0
1,2,4-Trichlorobenzene	1.405	1.223	-	13	20	133	0
IS1_Naphthalene-d8	1	1	-	0	20	133	0
Naphthalene	1.132	0.991	-	12.5	20	132	0
Benzoic Acid	5	5.096	-	-1.9	20	155	0
4-Chloroaniline	0.126	0.116	-	7.9	20	126	0
Hexachlorobutadiene	0.224	0.204	-	8.9	20	132	0
p-Chloro-m-cresol	0.283	0.269	-	4.9	20	138	0
2-Methylnaphthalene	0.737	0.643	-	12.8	20	130	0
1-Methylnaphthalene	0.238	0.202	-	15.1	20	123	0
Hexachlorocyclopentadiene	0.212	0.217	-	-2.4	20	145	0
2,4,6-Trichlorophenol	0.234	0.224	-	4.3	20	136	0
2,4,5-Trichlorophenol	0.249	0.24	-	3.6	20	135	0
2-Fluorobiphenyl	0.9	0.772	-	14.2	20	134	0
2-Chloronaphthalene	0.763	0.655	-	14.2	20	134	0
2-Nitroaniline	0.204	0.184	-	9.8	20	135	0
1,4-Dinitrobenzene	0.11	0.091	-	17.3	20	135	0
1,3-Dinitrobenzene	0.129	0.105	-	18.6	20	133	0
Dimethyl phthalate	0.863	0.724	-	16.1	20	130	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 : ABN0826
 Sample No : WG1964132-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 00:01
 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	0.987	-	12.8	20	133	0
2,6-Dinitrotoluene	0.169	0.153	-	9.5	20	132	0
1,2-Dinitrobenzene	0.077	0.068	-	11.7	20	132	0
IS1_Acenaphthene-d10	1	1	-	0	20	136	0
3-Nitroaniline	0.32	0.292	-	8.8	20	127	0
Acenaphthene	1.138	0.989	-	13.1	20	131	0
2,4-Dinitrophenol	5	4.611	-	7.8	20	168	0
Dibenzofuran	1.879	1.591	-	15.3	20	132	0
2,4-Dinitrotoluene	0.408	0.362	-	11.3	20	132	0
4-Nitrophenol	0.253	0.211	-	16.6	20	120	0
2,3,5,6-Tetrachlorophenol	0.341	0.333	-	2.3	20	134	0
2,3,4,6-Tetrachlorophenol	0.325	0.324	-	0.3	20	132	0
Diethyl phthalate	1.327	1.16	-	12.6	20	136	0
Fluorene	1.404	1.237	-	11.9	20	134	0
4-Chlorophenyl phenyl ethe	0.713	0.621	-	12.9	20	134	0
4-Nitroaniline	0.32	0.263	-	17.8	20	119	0
4,6-Dinitro-o-cresol	5	4.32	-	13.6	20	156	0
NDPA/DPA	1.166	1.042	-	10.6	20	134	0
Azobenzene	1.226	1.076	-	12.2	20	129	0
2,4,6-Tribromophenol	0.187	0.178	-	4.8	20	142	0
4-Bromophenyl phenyl ether	0.385	0.351	-	8.8	20	140	0
Hexachlorobenzene	0.425	0.372	-	12.5	20	132	0
Pentachlorophenol	5	4.036	-	19.3	20	133	0
IS1_Phenanthrene-d10	1	1	-	0	20	139	0
Phenanthrene	1.151	0.993	-	13.7	20	135	0
Anthracene	1.089	0.996	-	8.5	20	140	0
Carbazole	0.994	0.885	-	11	20	133	0
Di-n-butylphthalate	1.094	0.983	-	10.1	20	144	0
Fluoranthene	1.261	1.123	-	10.9	20	137	0
Benzidine	5	4.295	-	14.1	20	161	0
Pyrene	1.372	1.209	-	11.9	20	136	0
4-Terphenyl-d14	0.946	0.814	-	14	20	137	0
Butyl benzyl phthalate	5	3.666	-	26.7*	20	145	0
IS1_Chrysene-d12	1	1	-	0	20	139	0
Benzo(a)anthracene	1.453	1.285	-	11.6	20	133	0
3,3'-Dichlorobenzidine	5	4.128	-	17.4	20	141	0
Chrysene	1.403	1.237	-	11.8	20	133	0
Bis(2-ethylhexyl)phthalate	5	4.401	-	12	20	143	0
Di-n-octylphthalate	5	4.011	-	19.8	20	149	0
Benzo(b)fluoranthene	1.251	1.271	-	-1.6	20	147	0
Benzo(k)fluoranthene	1.251	1.113	-	11	20	121	0
Benzo(a)pyrene	1.101	1.082	-	1.7	20	135	0
IS1_Perylene-d12	1	1	-	0	20	138	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 : ABN0826
Sample No : WG1964132-3
Channel :

Lab Number : L2447890
Project Number : 12123
Calibration Date : 08/27/24 00:01
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	1.067	-	2.8	20	138	0
Dibenzo(a,h)anthracene	1.056	1.017	-	3.7	20	135	0
Benzo(ghi)perylene	0.977	0.985	-	-0.8	20	133	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : ABN0827
 Sample No : WG1964274-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 07:13
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS1_1,4-Dichlorobenzene-d4	1	1	-	0	20	80	0
n-Nitrosodimethylamine	0.657	0.747	-	-13.7	20	84	0
Pyridine	1.043	1.122	-	-7.6	20	76	0
2-Fluorophenol	1.05	1.04	-	1	20	78	0
Aniline	1.811	1.68	-	7.2	20	76	0
2-Chlorophenol	1.251	1.214	-	3	20	79	0
Phenol-d6	1.357	1.322	-	2.6	20	77	0
Phenol	1.577	1.494	-	5.3	20	76	0
Bis(2-chloroethyl)ether	1.167	1.187	-	-1.7	20	85	0
1,3-Dichlorobenzene	1.508	1.382	-	8.4	20	74	0
1,4-Dichlorobenzene	1.575	1.394	-	11.5	20	75	0
1,2-Dichlorobenzene	1.475	1.349	-	8.5	20	76	0
Benzyl alcohol	0.945	0.996	-	-5.4	20	84	0
Bis(2-chloroisopropyl)ethe	1.475	1.685	-	-14.2	20	95	0
2-Methylphenol	1.056	1.056	-	0	20	80	0
Hexachloroethane	0.558	0.547	-	2	20	81	0
n-Nitrosodi-n-propylamine	0.865	0.941	-	-8.8	20	89	0
3-Methylphenol/4-Methylphe	1.15	1.182	-	-2.8	20	81	0
Nitrobenzene-d5	1.294	1.342	-	-3.7	20	83	0
Nitrobenzene	1.289	1.352	-	-4.9	20	84	0
Isophorone	2.328	2.5	-	-7.4	20	88	0
2-Nitrophenol	0.574	0.659	-	-14.8	20	92	0
2,4-Dimethylphenol	1.101	1.175	-	-6.7	20	94	0
Bis(2-chloroethoxy)methane	1.567	1.579	-	-0.8	20	86	0
2,4-Dichlorophenol	1.153	1.162	-	-0.8	20	83	0
1,2,4-Trichlorobenzene	1.46	1.282	-	12.2	20	77	0
IS1_Naphthalene-d8	1	1	-	0	20	82	0
Naphthalene	1.049	0.966	-	7.9	20	80	0
Benzoic Acid	5	5.432	-	-8.6	20	104	0
4-Chloroaniline	0.118	0.126	-	-6.8	20	89	0
Hexachlorobutadiene	0.246	0.206	-	16.3	20	75	0
p-Chloro-m-cresol	0.277	0.288	-	-4	20	88	0
2-Methylnaphthalene	0.713	0.659	-	7.6	20	84	0
1-Methylnaphthalene	0.245	0.221	-	9.8	20	84	0
Hexachlorocyclopentadiene	0.251	0.246	-	2	20	90	0
2,4,6-Trichlorophenol	0.256	0.251	-	2	20	83	0
2,4,5-Trichlorophenol	0.262	0.276	-	-5.3	20	88	0
2-Fluorobiphenyl	0.904	0.829	-	8.3	20	83	0
2-Chloronaphthalene	0.759	0.702	-	7.5	20	83	0
2-Nitroaniline	0.2	0.228	-	-14	20	99	0
1,4-Dinitrobenzene	0.098	0.115	-	-17.3	20	100	0
1,3-Dinitrobenzene	0.114	0.133	-	-16.7	20	99	0
Dimethyl phthalate	0.923	0.916	-	0.8	20	91	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : ABN0827
 Sample No : WG1964274-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 07:13
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthylene	1.12	1.129	-	-0.8	20	88	0
2,6-Dinitrotoluene	0.173	0.196	-	-13.3	20	99	0
1,2-Dinitrobenzene	0.076	0.085	-	-11.8	20	99	0
IS1_Acenaphthene-d10	1	1	-	0	20	90	0
3-Nitroaniline	0.299	0.33	-	-10.4	20	97	0
Acenaphthene	1.115	1.001	-	10.2	20	87	0
2,4-Dinitrophenol	5	6.255	-	-25.1*	20	127	0
Dibenzofuran	1.837	1.661	-	9.6	20	87	0
2,4-Dinitrotoluene	0.383	0.427	-	-11.5	20	99	0
4-Nitrophenol	0.29	0.298	-	-2.8	20	94	0
2,3,5,6-Tetrachlorophenol	0.377	0.412	-	-9.3	20	96	0
2,3,4,6-Tetrachlorophenol	0.37	0.388	-	-4.9	20	96	0
Diethyl phthalate	1.487	1.447	-	2.7	20	97	0
Fluorene	1.431	1.335	-	6.7	20	90	0
4-Chlorophenyl phenyl ethe	0.78	0.665	-	14.7	20	87	0
4-Nitroaniline	0.314	0.34	-	-8.3	20	92	0
4,6-Dinitro-o-cresol	5	5.486	-	-9.7	20	120	0
NDPA/DPA	1.231	1.144	-	7.1	20	90	0
Azobenzene	1.305	1.356	-	-3.9	20	97	0
2,4,6-Tribromophenol	0.257	0.254	-	1.2	20	97	0
4-Bromophenyl phenyl ether	0.5	0.436	-	12.8	20	89	0
Hexachlorobenzene	0.628	0.544	-	13.4	20	93	0
Pentachlorophenol	0.322	0.348	-	-8.1	20	104	0
IS1_Phenanthrene-d10	1	1	-	0	20	97	0
Phenanthrene	1.058	0.969	-	8.4	20	93	0
Anthracene	1.035	0.983	-	5	20	96	0
Carbazole	0.948	0.931	-	1.8	20	95	0
Di-n-butylphthalate	1.034	1.078	-	-4.3	20	107	0
Fluoranthene	1.228	1.168	-	4.9	20	96	0
Benzidine	0.675	0.719	-	-6.5	20	100	0
Pyrene	1.301	1.275	-	2	20	96	0
4-Terphenyl-d14	1.029	0.946	-	8.1	20	96	0
Butyl benzyl phthalate	0.458	0.499	-	-9	20	115	0
IS1_Chrysene-d12	1	1	-	0	20	98	0
Benzo(a)anthracene	1.284	1.224	-	4.7	20	97	0
3,3'-Dichlorobenzidine	0.468	0.466	-	0.4	20	98	0
Chrysene	1.259	1.136	-	9.8	20	93	0
Bis(2-ethylhexyl)phthalate	0.639	0.703	-	-10	20	113	0
Di-n-octylphthalate	0.979	1.144	-	-16.9	20	113	0
Benzo(b)fluoranthene	1.317	1.181	-	10.3	20	89	0
Benzo(k)fluoranthene	1.202	1.244	-	-3.5	20	96	0
Benzo(a)pyrene	1.149	1.106	-	3.7	20	93	0
IS1_Perylene-d12	1	1	-	0	20	95	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : ABN0827
 Sample No : WG1964274-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 07:13
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Indeno(1,2,3-cd)pyrene	1.118	0.992	-	11.3	20	83	0
Dibenzo(a,h)anthracene	1.068	0.996	-	6.7	20	88	0
Benzo(ghi)perylene	1.078	0.97	-	10	20	87	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : AP90827
 Sample No : WG1964274-4
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/27/24 07:36
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS2_1,4-Dichlorobenzene-d4	1	1	-	0	20	75	0
Benzaldehyde	1.094	0.972	-	11.2	20	67	0
Acetophenone	1.903	1.682	-	11.6	20	63	0
m-Toluidine	1.828	1.631	-	10.8	20	64	0
2-Chloroaniline	1.742	1.508	-	13.4	20	63	0
IS2_Naphthalene-d8	1	1	-	0	20	74	0
a-Terpineol	0.277	0.269	-	2.9	20	71	0
3-Chloroaniline	0.15	0.14	-	6.7	20	69	0
2,6-Dichlorophenol	0.326	0.291	-	10.7	20	64	0
1-chloro-2-nitrobenzene	0.143	0.136	-	4.9	20	69	0
Caprolactam	5	5.027	-	-0.5	20	80	0
1,2,4,5-Tetrachlorobenzene	0.479	0.379	-	20.9*	20	59	0
Biphenyl	1.026	0.843	-	17.8	20	61	0
IS2_Acenaphthene-d10	1	1	-	0	20	74	0
Dichloran	5	4.22	-	15.6	20	71	0
Pentachloronitrobenzene	0.235	0.209	-	11.1	20	69	0
IS2_Phenanthrene-d10	1	1	-	0	20	80	0
Diphenamid	0.515	0.436	-	15.3	20	66	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : ABN0828
 Sample No : WG1964949-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 09:49
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS1_1,4-Dichlorobenzene-d4	1	1	-	0	20	115	0
n-Nitrosodimethylamine	0.657	0.7	-	-6.5	20	113	0
Pyridine	1.043	1.003	-	3.8	20	97	0
2-Fluorophenol	1.05	1.037	-	1.2	20	112	0
Aniline	1.811	1.606	-	11.3	20	105	0
2-Chlorophenol	1.251	1.177	-	5.9	20	111	0
Phenol-d6	1.357	1.29	-	4.9	20	108	0
Phenol	1.577	1.42	-	10	20	104	0
Bis(2-chloroethyl)ether	1.167	1.062	-	9	20	109	0
1,3-Dichlorobenzene	1.508	1.381	-	8.4	20	107	0
1,4-Dichlorobenzene	1.575	1.392	-	11.6	20	108	0
1,2-Dichlorobenzene	1.475	1.334	-	9.6	20	107	0
Benzyl alcohol	0.945	0.933	-	1.3	20	113	0
Bis(2-chloroisopropyl)ethe	1.475	1.546	-	-4.8	20	125	0
2-Methylphenol	1.056	0.987	-	6.5	20	108	0
Hexachloroethane	0.558	0.537	-	3.8	20	114	0
n-Nitrosodi-n-propylamine	0.865	0.812	-	6.1	20	111	0
3-Methylphenol/4-Methylphe	1.15	1.078	-	6.3	20	106	0
Nitrobenzene-d5	1.294	1.239	-	4.3	20	111	0
Nitrobenzene	1.289	1.216	-	5.7	20	109	0
Isophorone	2.328	2.155	-	7.4	20	109	0
2-Nitrophenol	0.574	0.613	-	-6.8	20	123	0
2,4-Dimethylphenol	1.101	1.016	-	7.7	20	116	0
Bis(2-chloroethoxy)methane	1.567	1.372	-	12.4	20	108	0
2,4-Dichlorophenol	1.153	1.043	-	9.5	20	107	0
1,2,4-Trichlorobenzene	1.46	1.203	-	17.6	20	104	0
IS1_Naphthalene-d8	1	1	-	0	20	108	0
Naphthalene	1.049	0.932	-	11.2	20	101	0
Benzoic Acid	5	4.844	-	3.1	20	116	0
4-Chloroaniline	0.118	0.118	-	0	20	109	0
Hexachlorobutadiene	0.246	0.221	-	10.2	20	106	0
p-Chloro-m-cresol	0.277	0.279	-	-0.7	20	112	0
2-Methylnaphthalene	0.713	0.616	-	13.6	20	103	0
1-Methylnaphthalene	0.245	0.206	-	15.9	20	103	0
Hexachlorocyclopentadiene	0.251	0.247	-	1.6	20	119	0
2,4,6-Trichlorophenol	0.256	0.243	-	5.1	20	106	0
2,4,5-Trichlorophenol	0.262	0.26	-	0.8	20	109	0
2-Fluorobiphenyl	0.904	0.767	-	15.2	20	101	0
2-Chloronaphthalene	0.759	0.648	-	14.6	20	101	0
2-Nitroaniline	0.2	0.208	-	-4	20	118	0
1,4-Dinitrobenzene	0.098	0.106	-	-8.2	20	121	0
1,3-Dinitrobenzene	0.114	0.118	-	-3.5	20	116	0
Dimethyl phthalate	0.923	0.821	-	11.1	20	108	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : ABN0828
 Sample No : WG1964949-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 09:49
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthylene	1.12	1.018	-	9.1	20	104	0
2,6-Dinitrotoluene	0.173	0.174	-	-0.6	20	115	0
1,2-Dinitrobenzene	0.076	0.073	-	3.9	20	113	0
IS1_Acenaphthene-d10	1	1	-	0	20	112	0
3-Nitroaniline	0.299	0.313	-	-4.7	20	113	0
Acenaphthene	1.115	0.96	-	13.9	20	103	0
2,4-Dinitrophenol	5	5.927	-	-18.5	20	147	0
Dibenzofuran	1.837	1.562	-	15	20	101	0
2,4-Dinitrotoluene	0.383	0.391	-	-2.1	20	112	0
4-Nitrophenol	0.29	0.269	-	7.2	20	105	0
2,3,5,6-Tetrachlorophenol	0.377	0.398	-	-5.6	20	115	0
2,3,4,6-Tetrachlorophenol	0.37	0.38	-	-2.7	20	116	0
Diethyl phthalate	1.487	1.369	-	7.9	20	114	0
Fluorene	1.431	1.264	-	11.7	20	105	0
4-Chlorophenyl phenyl ethe	0.78	0.642	-	17.7	20	104	0
4-Nitroaniline	0.314	0.317	-	-1	20	106	0
4,6-Dinitro-o-cresol	5	5.202	-	-4	20	140	0
NDPA/DPA	1.231	1.082	-	12.1	20	105	0
Azobenzene	1.305	1.24	-	5	20	110	0
2,4,6-Tribromophenol	0.257	0.248	-	3.5	20	117	0
4-Bromophenyl phenyl ether	0.5	0.424	-	15.2	20	107	0
Hexachlorobenzene	0.628	0.509	-	18.9	20	107	0
Pentachlorophenol	0.322	0.35	-	-8.7	20	130	0
IS1_Phenanthrene-d10	1	1	-	0	20	115	0
Phenanthrene	1.058	0.918	-	13.2	20	104	0
Anthracene	1.035	0.946	-	8.6	20	109	0
Carbazole	0.948	0.884	-	6.8	20	107	0
Di-n-butylphthalate	1.034	1.105	-	-6.9	20	130	0
Fluoranthene	1.228	1.104	-	10.1	20	108	0
Benzidine	0.675	0.72	-	-6.7	20	118	0
Pyrene	1.301	1.184	-	9	20	106	0
4-Terphenyl-d14	1.029	0.912	-	11.4	20	109	0
Butyl benzyl phthalate	0.458	0.518	-	-13.1	20	141	0
IS1_Chrysene-d12	1	1	-	0	20	114	0
Benzo(a)anthracene	1.284	1.158	-	9.8	20	106	0
3,3'-Dichlorobenzidine	0.468	0.476	-	-1.7	20	116	0
Chrysene	1.259	1.124	-	10.7	20	106	0
Bis(2-ethylhexyl)phthalate	0.639	0.755	-	-18.2	20	141	0
Di-n-octylphthalate	0.979	1.287	-	-31.5*	20	147	0
Benzo(b)fluoranthene	1.317	1.176	-	10.7	20	103	0
Benzo(k)fluoranthene	1.202	1.199	-	0.2	20	107	0
Benzo(a)pyrene	1.149	1.1	-	4.3	20	106	0
IS1_Perylene-d12	1	1	-	0	20	114	0

* Value outside of QC limits.



Calibration Verification Summary
Form 7
Semivolatiles

Client : Alpha Geoscience
Project Name : RANCO MINE
Instrument ID : SV112
Lab File ID : ABN0828
Sample No : WG1964949-3
Channel :

Lab Number : L2447890
Project Number : 12123
Calibration Date : 08/28/24 09:49
Init. Calib. Date(s) : 06/25/24 06/26/24
Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Indeno(1,2,3-cd)pyrene	1.118	0.979	-	12.4	20	98	0
Dibenzo(a,h)anthracene	1.068	0.98	-	8.2	20	104	0
Benzo(ghi)perylene	1.078	0.952	-	11.7	20	102	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : SV112
 Lab File ID : AP90828
 Sample No : WG1964949-4
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 10:12
 Init. Calib. Date(s) : 06/25/24 06/26/24
 Init. Calib. Times : 20:18 07:31

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS2_1,4-Dichlorobenzene-d4	1	1	-	0	20	110	0
Benzaldehyde	1.094	0.923	-	15.6	20	94	0
Acetophenone	1.903	1.599	-	16	20	88	0
m-Toluidine	1.828	1.548	-	15.3	20	88	0
2-Chloroaniline	1.742	1.411	-	19	20	87	0
IS2_Naphthalene-d8	1	1	-	0	20	106	0
a-Terpineol	0.277	0.269	-	2.9	20	102	0
3-Chloroaniline	0.15	0.132	-	12	20	94	0
2,6-Dichlorophenol	0.326	0.276	-	15.3	20	87	0
1-chloro-2-nitrobenzene	0.143	0.129	-	9.8	20	94	0
Caprolactam	5	4.614	-	7.7	20	104	0
1,2,4,5-Tetrachlorobenzene	0.479	0.357	-	25.5*	20	80	0
Biphenyl	1.026	0.764	-	25.5*	20	80	0
IS2_Acenaphthene-d10	1	1	-	0	20	102	0
Dichloran	5	4.238	-	15.2	20	98	0
Pentachloronitrobenzene	0.235	0.201	-	14.5	20	91	0
IS2_Phenanthrene-d10	1	1	-	0	20	100	0
Diphenamid	0.515	0.448	-	13	20	84	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 : ABN0828
 Sample No : WG1964990-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 11:08
 Init. Calib. Date(s) : 06/24/24 06/25/24
 Init. Calib. Times : 16:56 04:24

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS1_1,4-Dichlorobenzene-d4	1	1	-	0	20	140	0
n-Nitrosodimethylamine	0.851	0.923	-	-8.5	20	166	0
Pyridine	1.392	1.39	-	0.1	20	152	0
2-Fluorophenol	1.156	1.227	-	-6.1	20	159	0
Aniline	2.049	2.137	-	-4.3	20	160	0
2-Chlorophenol	1.288	1.256	-	2.5	20	153	0
Phenol-d6	1.583	1.7	-	-7.4	20	168	0
Phenol	1.642	1.761	-	-7.2	20	165	0
Bis(2-chloroethyl)ether	1.348	1.417	-	-5.1	20	162	0
1,3-Dichlorobenzene	1.546	1.449	-	6.3	20	145	0
1,4-Dichlorobenzene	1.565	1.501	-	4.1	20	150	0
1,2-Dichlorobenzene	1.522	1.409	-	7.4	20	145	0
Benzyl alcohol	1.267	1.448	-	-14.3	20	175	0
Bis(2-chloroisopropyl)ethe	2.166	2.289	-	-5.7	20	166	0
2-Methylphenol	1.183	1.222	-	-3.3	20	158	0
Hexachloroethane	0.623	0.633	-	-1.6	20	164	0
n-Nitrosodi-n-propylamine	1.057	1.276	-	-20.7*	20	180	0
3-Methylphenol/4-Methylphe	1.279	1.337	-	-4.5	20	162	0
Nitrobenzene-d5	1.619	1.857	-	-14.7	20	179	0
Nitrobenzene	1.643	1.88	-	-14.4	20	180	0
Isophorone	2.76	3.317	-	-20.2*	20	179	0
2-Nitrophenol	0.692	0.723	-	-4.5	20	157	0
2,4-Dimethylphenol	1.301	1.474	-	-13.3	20	174	0
Bis(2-chloroethoxy)methane	1.778	1.878	-	-5.6	20	164	0
2,4-Dichlorophenol	1.233	1.182	-	4.1	20	145	0
1,2,4-Trichlorobenzene	1.51	1.382	-	8.5	20	147	0
IS1_Naphthalene-d8	1	1	-	0	20	156	0
Naphthalene	1.147	0.973	-	15.2	20	150	0
Benzoic Acid	5	3.828	-	23.4*	20	124	0
4-Chloroaniline	0.169	0.173	-	-2.4	20	171	0
Hexachlorobutadiene	0.303	0.248	-	18.2	20	148	0
p-Chloro-m-cresol	0.343	0.367	-	-7	20	178	0
2-Methylnaphthalene	0.764	0.669	-	12.4	20	151	0
1-Methylnaphthalene	0.29	0.293	-	-1	20	172	0
Hexachlorocyclopentadiene	0.336	0.304	-	9.5	20	153	0
2,4,6-Trichlorophenol	0.301	0.273	-	9.3	20	150	0
2,4,5-Trichlorophenol	0.322	0.3	-	6.8	20	151	0
2-Fluorobiphenyl	1.027	0.844	-	17.8	20	143	0
2-Chloronaphthalene	0.813	0.733	-	9.8	20	155	0
2-Nitroaniline	0.245	0.211	-	13.9	20	141	0
1,4-Dinitrobenzene	0.129	0.124	-	3.9	20	159	0
1,3-Dinitrobenzene	0.147	0.139	-	5.4	20	151	0
Dimethyl phthalate	0.989	0.932	-	5.8	20	158	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 : ABN0828
 Sample No : WG1964990-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 11:08
 Init. Calib. Date(s) : 06/24/24 06/25/24
 Init. Calib. Times : 16:56 04:24

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Acenaphthylene	1.244	1.065	-	14.4	20	142	0
2,6-Dinitrotoluene	0.213	0.195	-	8.5	20	148	0
1,2-Dinitrobenzene	0.091	0.083	-	8.8	20	146	0
IS1_Acenaphthene-d10	1	1	-	0	20	156	0
3-Nitroaniline	0.319	0.307	-	3.8	20	151	0
Acenaphthene	1.153	1.015	-	12	20	152	0
2,4-Dinitrophenol	0.213	0.219	-	-2.8	20	159	0
Dibenzofuran	1.936	1.668	-	13.8	20	150	0
2,4-Dinitrotoluene	0.475	0.426	-	10.3	20	144	0
4-Nitrophenol	0.323	0.375	-	-16.1	20	192	0
2,3,5,6-Tetrachlorophenol	0.452	0.411	-	9.1	20	147	0
2,3,4,6-Tetrachlorophenol	0.435	0.412	-	5.3	20	149	0
Diethyl phthalate	1.529	1.463	-	4.3	20	163	0
Fluorene	1.523	1.285	-	15.6	20	143	0
4-Chlorophenyl phenyl ethe	0.801	0.683	-	14.7	20	152	0
4-Nitroaniline	0.333	0.306	-	8.1	20	154	0
4,6-Dinitro-o-cresol	0.266	0.297	-	-11.7	20	167	0
NDPA/DPA	1.263	1.151	-	8.9	20	151	0
Azobenzene	1.446	1.605	-	-11	20	187	0
2,4,6-Tribromophenol	0.249	0.212	-	14.9	20	136	0
4-Bromophenyl phenyl ether	0.5	0.434	-	13.2	20	150	0
Hexachlorobenzene	0.569	0.483	-	15.1	20	149	0
Pentachlorophenol	0.361	0.331	-	8.3	20	139	0
IS1_Phenanthrene-d10	1	1	-	0	20	154	0
Phenanthrene	1.117	0.951	-	14.9	20	148	0
Anthracene	1.111	0.977	-	12.1	20	147	0
Carbazole	1.018	0.866	-	14.9	20	144	0
Di-n-butylphthalate	1.195	1.211	-	-1.3	20	166	0
Fluoranthene	1.366	1.152	-	15.7	20	144	0
Benzidine	0.741	0.752	-	-1.5	20	158	0
Pyrene	1.44	1.216	-	15.6	20	144	0
4-Terphenyl-d14	1.076	0.905	-	15.9	20	145	0
Butyl benzyl phthalate	0.55	0.553	-	-0.5	20	170	0
IS1_Chrysene-d12	1	1	-	0	20	151	0
Benzo(a)anthracene	1.478	1.258	-	14.9	20	145	0
3,3'-Dichlorobenzidine	0.489	0.474	-	3.1	20	146	0
Chrysene	1.429	1.174	-	17.8	20	141	0
Bis(2-ethylhexyl)phthalate	0.817	0.894	-	-9.4	20	169	0
Di-n-octylphthalate	1.352	1.52	-	-12.4	20	177	0
Benzo(b)fluoranthene	1.43	1.179	-	17.6	20	144	0
Benzo(k)fluoranthene	1.356	1.146	-	15.5	20	136	0
Benzo(a)pyrene	1.242	1.071	-	13.8	20	139	0
IS1_Perylene-d12	1	1	-	0	20	144	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 : ABN0828
Sample No : WG1964990-3
Channel :

Lab Number : L2447890
Project Number : 12123
Calibration Date : 08/28/24 11:08
Init. Calib. Date(s) : 06/24/24 06/25/24
Init. Calib. Times : 16:56 04:24

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Indeno(1,2,3-cd)pyrene	1.082	1.024	-	5.4	20	141	0
Dibenzo(a,h)anthracene	1.042	0.985	-	5.5	20	142	0
Benzo(ghi)perylene	0.964	0.947	-	1.8	20	145	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 : AP90828
 Sample No : WG1964990-4
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 11:32
 Init. Calib. Date(s) : 06/24/24 06/25/24
 Init. Calib. Times : 16:56 04:24

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
IS2_1,4-Dichlorobenzene-d4	1	1	-	0	20	155	0
Benzaldehyde	1.187	1.064	-	10.4	20	140	0
Acetophenone	2.158	1.945	-	9.9	20	141	0
m-Toluidine	1.957	1.745	-	10.8	20	139	0
2-Chloroaniline	1.709	1.361	-	20.4*	20	125	0
IS2_Naphthalene-d8	1	1	-	0	20	160	0
a-Terpineol	0.4	0.363	-	9.3	20	147	0
3-Chloroaniline	0.201	0.195	-	3	20	156	0
2,6-Dichlorophenol	0.362	0.296	-	18.2	20	126	0
1-chloro-2-nitrobenzene	0.18	0.158	-	12.2	20	136	0
Caprolactam	0.21	0.199	-	5.2	20	142	0
1,2,4,5-Tetrachlorobenzene	0.548	0.394	-	28.1*	20	119	0
Biphenyl	1.084	0.829	-	23.5*	20	125	0
IS2_Acenaphthene-d10	1	1	-	0	20	159	0
Dichloran	0.247	0.198	-	19.8	20	120	0
Pentachloronitrobenzene	0.27	0.233	-	13.7	20	128	0
IS2_Phenanthrene-d10	1	1	-	0	20	152	0
Diphenamid	0.561	0.433	-	22.8*	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 : ABN0830
 Sample No : WG1965924-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/30/24 06:48
 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	102	0
n-Nitrosodimethylamine	0.71	0.666	-	6.2	20	95	0
Pyridine	1.086	1.056	-	2.8	20	90	0
2-Fluorophenol	1.08	1.032	-	4.4	20	97	0
Aniline	1.765	1.612	-	8.7	20	100	0
2-Chlorophenol	1.294	1.177	-	9	20	97	0
Phenol-d6	1.413	1.269	-	10.2	20	97	0
Phenol	1.566	1.384	-	11.6	20	97	0
Bis(2-chloroethyl)ether	1.247	1.116	-	10.5	20	102	0
1,3-Dichlorobenzene	1.587	1.437	-	9.5	20	100	0
1,4-Dichlorobenzene	1.599	1.429	-	10.6	20	99	0
1,2-Dichlorobenzene	1.562	1.384	-	11.4	20	99	0
Benzyl alcohol	1.01	0.896	-	11.3	20	99	0
Bis(2-chloroisopropyl)ethe	1.617	1.713	-	-5.9	20	120	0
2-Methylphenol	1.126	1.017	-	9.7	20	104	0
Hexachloroethane	0.563	0.541	-	3.9	20	102	0
n-Nitrosodi-n-propylamine	0.862	0.809	-	6.1	20	106	0
3-Methylphenol/4-Methylphe	1.241	1.103	-	11.1	20	103	0
Nitrobenzene-d5	1.368	1.2	-	12.3	20	99	0
Nitrobenzene	1.312	1.198	-	8.7	20	101	0
Isophorone	2.344	2.123	-	9.4	20	102	0
2-Nitrophenol	0.667	0.65	-	2.5	20	112	0
2,4-Dimethylphenol	1.081	1.1	-	-1.8	20	169	0
Bis(2-chloroethoxy)methane	1.585	1.431	-	9.7	20	106	0
2,4-Dichlorophenol	1.18	1.135	-	3.8	20	108	0
1,2,4-Trichlorobenzene	1.405	1.253	-	10.8	20	103	0
IS1_Naphthalene-d8	1	1	-	0	20	104	0
Naphthalene	1.132	0.952	-	15.9	20	100	0
Benzoic Acid	5	5.198	-	-4	20	125	0
4-Chloroaniline	0.126	0.12	-	4.8	20	103	0
Hexachlorobutadiene	0.224	0.21	-	6.3	20	107	0
p-Chloro-m-cresol	0.283	0.286	-	-1.1	20	116	0
2-Methylnaphthalene	0.737	0.651	-	11.7	20	104	0
1-Methylnaphthalene	0.238	0.211	-	11.3	20	101	0
Hexachlorocyclopentadiene	0.212	0.235	-	-10.8	20	124	0
2,4,6-Trichlorophenol	0.234	0.244	-	-4.3	20	116	0
2,4,5-Trichlorophenol	0.249	0.245	-	1.6	20	108	0
2-Fluorobiphenyl	0.9	0.804	-	10.7	20	109	0
2-Chloronaphthalene	0.763	0.682	-	10.6	20	109	0
2-Nitroaniline	0.204	0.196	-	3.9	20	113	0
1,4-Dinitrobenzene	0.11	0.107	-	2.7	20	124	0
1,3-Dinitrobenzene	0.129	0.121	-	6.2	20	120	0
Dimethyl phthalate	0.863	0.801	-	7.2	20	113	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 : ABN0830
 Sample No : WG1965924-3
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/30/24 06:48
 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	1.02	-	9.9	20	108	0
2,6-Dinitrotoluene	0.169	0.171	-	-1.2	20	117	0
1,2-Dinitrobenzene	0.077	0.077	-	0	20	118	0
IS1_Acenaphthene-d10	1	1	-	0	20	112	0
3-Nitroaniline	0.32	0.307	-	4.1	20	110	0
Acenaphthene	1.138	1.025	-	9.9	20	112	0
2,4-Dinitrophenol	5	5.127	-	-2.5	20	158	0
Dibenzofuran	1.879	1.682	-	10.5	20	115	0
2,4-Dinitrotoluene	0.408	0.397	-	2.7	20	119	0
4-Nitrophenol	0.253	0.239	-	5.5	20	111	0
2,3,5,6-Tetrachlorophenol	0.341	0.366	-	-7.3	20	121	0
2,3,4,6-Tetrachlorophenol	0.325	0.346	-	-6.5	20	116	0
Diethyl phthalate	1.327	1.302	-	1.9	20	126	0
Fluorene	1.404	1.272	-	9.4	20	113	0
4-Chlorophenyl phenyl ethe	0.713	0.653	-	8.4	20	116	0
4-Nitroaniline	0.32	0.281	-	12.2	20	104	0
4,6-Dinitro-o-cresol	5	5.102	-	-2	20	155	0
NDPA/DPA	1.166	1.116	-	4.3	20	118	0
Azobenzene	1.226	1.149	-	6.3	20	114	0
2,4,6-Tribromophenol	0.187	0.186	-	0.5	20	122	0
4-Bromophenyl phenyl ether	0.385	0.37	-	3.9	20	122	0
Hexachlorobenzene	0.425	0.402	-	5.4	20	118	0
Pentachlorophenol	5	4.65	-	7	20	129	0
IS1_Phenanthrene-d10	1	1	-	0	20	125	0
Phenanthrene	1.151	0.965	-	16.2	20	119	0
Anthracene	1.089	0.984	-	9.6	20	124	0
Carbazole	0.994	0.874	-	12.1	20	119	0
Di-n-butylphthalate	1.094	1.063	-	2.8	20	141	0
Fluoranthene	1.261	1.119	-	11.3	20	123	0
Benzidine	5	4.672	-	6.6	20	161	0
Pyrene	1.372	1.197	-	12.8	20	122	0
4-Terphenyl-d14	0.946	0.836	-	11.6	20	127	0
Butyl benzyl phthalate	5	4.2	-	16	20	153	0
IS1_Chrysene-d12	1	1	-	0	20	133	0
Benzo(a)anthracene	1.453	1.266	-	12.9	20	126	0
3,3'-Dichlorobenzidine	5	4.065	-	18.7	20	133	0
Chrysene	1.403	1.235	-	12	20	128	0
Bis(2-ethylhexyl)phthalate	5	4.916	-	1.7	20	154	0
Di-n-octylphthalate	5	4.58	-	8.4	20	166	0
Benzo(b)fluoranthene	1.251	1.215	-	2.9	20	135	0
Benzo(k)fluoranthene	1.251	1.145	-	8.5	20	119	0
Benzo(a)pyrene	1.101	1.058	-	3.9	20	127	0
IS1_Perylene-d12	1	1	-	0	20	133	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 : ABN0830
Sample No : WG1965924-3
Channel :

Lab Number : L2447890
Project Number : 12123
Calibration Date : 08/30/24 06:48
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	1.029	-	6.3	20	128	0
Dibenzo(a,h)anthracene	1.056	0.996	-	5.7	20	127	0
Benzo(ghi)perylene	0.977	0.954	-	2.4	20	124	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 : AP90830
 Sample No : WG1965924-4
 Channel :

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/30/24 07:14
 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)
IS2_1,4-Dichlorobenzene-d4	1	1	-	0	20	93	0
Benzaldehyde	1.145	0.942	-	17.7	20	80	0
Acetophenone	2.032	1.615	-	20.5*	20	78	0
m-Toluidine	1.86	1.534	-	17.5	20	75	0
2-Chloroaniline	1.773	1.454	-	18	20	77	0
IS2_Naphthalene-d8	1	1	-	0	20	93	0
a-Terpineol	0.297	0.275	-	7.4	20	84	0
3-Chloroaniline	0.163	0.13	-	20.2*	20	73	0
2,6-Dichlorophenol	0.319	0.285	-	10.7	20	80	0
1-chloro-2-nitrobenzene	0.155	0.126	-	18.7	20	76	0
Caprolactam	5	4.45	-	11	20	92	0
1,2,4,5-Tetrachlorobenzene	0.444	0.365	-	17.8	20	80	0
Biphenyl	1.036	0.828	-	20.1*	20	79	0
IS2_Acenaphthene-d10	1	1	-	0	20	95	0
Dichloran	5	3.988	-	20.2*	20	92	0
Pentachloronitrobenzene	5	4.344	-	13.1	20	96	0
IS2_Phenanthrene-d10	1	1	-	0	20	103	0
Diphenamid	0.507	0.416	-	17.9	20	88	0

* Value outside of QC limits.



SVOC SIM Data Section



Geology
Hydrology
Remediation
Water Supply

**QA/QC Review of Method 8270D SIM Semi-Volatiles
Data for Alpha Analytical, SDG Number: L2447890**

**11 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 WG1963738-1BLANK contained a trace of pentachlorophenol (0.45 ug/L)). Method blank WG1964121-1BLANK contained traces of 6 compounds (highlighted yellow on attached Form 1). FIELD BLANK contained traces of naphthalene (0.03 ug/L) and pentachlorophenol (0.06 ug/L). Positive results for these compounds 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 sample 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 differences for target compounds were below the allowable maximum, but 1 of 2 percent recoveries for pentachlorophenol was below QC limits, but not below 30% for aqueous MS/MSD sample MW-6B. The “not detected” result for pentachlorophenol should be considered estimated (UJ) in sample MW-6B.

Laboratory Control Sample: The relative percent differences (RPDs) for target compounds were below the allowable maximum and percent recoveries (%Rs) were within QC limits for aqueous samples WG1964720-2/3 and WG1964121-2/3.

The RPD for pentachlorophenol was above the allowable maximum for aqueous samples WG1963738-2/3. Positive results for pentachlorophenol should be considered estimated (J) in associated aqueous samples.

One of two %Rs for hexachlorobutadiene was below QC limits, but not below 30% for aqueous samples WG1963738-2/3. Positive results for hexachlorobutadiene should be considered estimated, biased low (J-) and “not detected” results estimated (UJ) in associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/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.

Surrogate Recovery Summary

Form 2

Semivolatiles

Client: Alpha Geoscience
Project Name: RANCO MINE

Lab Number: L2447890
Project Number: 12123
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	S1 (2FP)	S2 (PHL)	S3 (NBZ)	S4 (FBP)	S5 (TBP)	S6 (TPH)	TOT OUT
MW-3A (L2447890-01)	34	32	101	72	46	88	0
MW-6A (L2447890-02)	37	28	66	56	44	59	0
MW-6B (L2447890-03)	21	22	60	54	22	61	0
MW-6C (L2447890-04)	29	27	64	57	30	60	0
MW-7A (L2447890-05)	20*	19	61	54	21	53	1
MW-7B (L2447890-06)	38	35	110	78	54	100	0
MW-7C (L2447890-07)	28	29	112	80	40	101	0
MW-8A (L2447890-08)	35	34	105	76	49	94	0
MW-8B (L2447890-09)	31	32	104	75	41	91	0
MW-8C2 (L2447890-10)	33	33	107	77	45	94	0
MW-9B (L2447890-11)	41	39	92	66	48	79	0
DUP (L2447890-12)	29	25	66	79	58	68	0
FIELD BLANK (L2447890-13)	47	35	76	89	93	78	0
WG1963738-1BLANK	33	32	75	62	34	70	0
WG1963738-2LCS	41	35	66	53	48	59	0
WG1963738-3LCSD	49	40	76	59	59	66	0
MW-6BMS	32	29	69	57	41	62	0
MW-6BMSD	25	24	67	56	34	61	0
WG1964121-1BLANK	51	35	93	88	68	94	0
WG1964121-2LCS	53	41	88	72	71	84	0
WG1964121-3LCSD	55	45	89	76	77	88	0
WG1964720-1BLANK	45	35	72	84	86	73	0
WG1964720-2LCS	56	44	75	88	101	72	0
WG1964720-3LCSD	58	46	78	90	105	76	0

QC LIMITS

(21-120) 2FP = 2-FLUOROPHENOL
(10-120) PHL = PHENOL-D6
(23-120) NBZ = NITROBENZENE-D5
(15-120) FBP = 2-FLUOROBIPHENYL
(10-120) TBP = 2,4,6-TRIBROMOPHENOL
(41-149) TPH = 4-TERPHENYL-D14

* Values outside of QC limits

FORM II NYTCL-8270-SIM-RVT



Laboratory Control Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Matrix (Level) : WATER (LOW)
 LCS Sample ID : **WG1963738-2** Analysis Date : 08/27/24 10:42 File ID : 963738-2
 LCSD Sample ID : **WG1963738-3** Analysis Date : 08/27/24 10:58 File ID : 963738-3

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			
Acenaphthene	20	9.6	48	20	10	52	8	40-140	40
2-Chloronaphthalene	20	9.7	48	20	10	53	10	40-140	40
Fluoranthene	20	12	58	20	13	65	11	40-140	40
Hexachlorobutadiene	20	7.7	39 Q	20	8.3	41	5	40-140	40
Naphthalene	20	8.6	43	20	9.6	48	11	40-140	40
Benzo(a)anthracene	20	11	55	20	12	62	12	40-140	40
Benzo(a)pyrene	20	13	64	20	14	71	10	40-140	40
Benzo(b)fluoranthene	20	12	58	20	14	68	16	40-140	40
Benzo(k)fluoranthene	20	12	60	20	13	64	6	40-140	40
Chrysene	20	11	54	20	12	59	9	40-140	40
Acenaphthylene	20	11	56	20	12	61	9	40-140	40
Anthracene	20	12	60	20	13	66	10	40-140	40
Benzo(ghi)perylene	20	15	73	20	16	81	10	40-140	40
Fluorene	20	10	52	20	11	57	9	40-140	40
Phenanthrene	20	11	55	20	12	62	12	40-140	40
Dibenzo(a,h)anthracene	20	16	78	20	17	85	9	40-140	40
Indeno(1,2,3-cd)pyrene	20	16	78	20	17	86	10	40-140	40
Pyrene	20	12	58	20	13	64	10	40-140	40
2-Methylnaphthalene	20	9.4	47	20	10	52	10	40-140	40
Pentachlorophenol	20	9.8	49	20	15	76	43 Q	40-140	40
Hexachlorobenzene	20	10	52	20	11	57	9	40-140	40
Hexachloroethane	20	8.0	40	20	8.8	44	10	40-140	40



Matrix Spike Sample Summary

Form 3

Semivolatiles

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Client Sample ID : **MW-6B**
 Lab Sample ID : L2447890-03
 Matrix Spike : WG1963738-4
 Matrix Spike Dup : WG1963738-5

Lab Number : L2447890
 Project Number : 12123
 Matrix (Level) : WATER (LOW)
 Analysis Date : 08/27/24 12:19
 MS Analysis Date : 08/27/24 13:08
 MSD Analysis Date : 08/27/24 13:24

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	10	50	20	10	50	0	40-140	40	
2-Chloronaphthalene	ND	20	10	50	20	10	50	0	40-140	40	
Fluoranthene	ND	20	12	60	20	12	60	0	40-140	40	
Hexachlorobutadiene	ND	20	8.2	41	20	8.3	42	1	40-140	40	
Naphthalene	ND	20	9.1	46	20	9.0	45	1	40-140	40	
Benzo(a)anthracene	ND	20	11	55	20	11	55	0	40-140	40	
Benzo(a)pyrene	ND	20	13	65	20	13	65	0	40-140	40	
Benzo(b)fluoranthene	ND	20	12	60	20	12	60	0	40-140	40	
Benzo(k)fluoranthene	ND	20	13	65	20	12	60	8	40-140	40	
Chrysene	ND	20	12	60	20	11	55	9	40-140	40	
Acenaphthylene	ND	20	12	60	20	12	60	0	40-140	40	
Anthracene	ND	20	12	60	20	12	60	0	40-140	40	
Benzo(ghi)perylene	ND	20	15	75	20	14	70	7	40-140	40	
Fluorene	ND	20	11	55	20	11	55	0	40-140	40	
Phenanthrene	ND	20	12	60	20	11	55	9	40-140	40	
Dibenzo(a,h)anthracene	ND	20	16	80	20	15	75	6	40-140	40	
Indeno(1,2,3-cd)pyrene	ND	20	16	80	20	15	75	6	40-140	40	
Pyrene	ND	20	12	60	20	12	60	0	40-140	40	
2-Methylnaphthalene	ND	20	10	50	20	10	50	0	40-140	40	
Pentachlorophenol	ND	20	8.6	43	20	7.7	39	Q	11	40-140	40
Hexachlorobenzene	ND	20	11	55	20	11	55	0	40-140	40	
Hexachloroethane	ND	20	8.7	44	20	8.8	44	1	40-140	40	



Results Summary

Form 1

Semivolatile Organics by GC/MS-SIM

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Lab ID : WG1963738-1
 Client ID : **WG1963738-1BLANK**
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 963738-1
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/27/24 11:15
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : RP
 Instrument ID : SV120
 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	0.45	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 : WG1964121-1
 Client ID : **WG1964121-1BLANK**
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8270E-SIM
 Lab File ID : 964121-1
 Sample Amount : 100 ml
 Extraction Method : EPA 3510C
 Extract Volume : 1000 uL
 GPC Cleanup : N

Lab Number : L2447890
 Project Number : 12123
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 08/27/24 08:48
 Date Extracted : 08/26/24
 Dilution Factor : 1
 Analyst : RP
 Instrument ID : SV120
 GC Column : RXI-5SiLM
 %Solids : N/A
 Injection Volume : 1 uL

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
83-32-9	Acenaphthene	0.03	0.10	0.02	J
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	0.06	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	0.06	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	0.05	0.10	0.03	J
87-86-5	Pentachlorophenol	0.50	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



1,4-Dioxane

Data Section



**QA/QC Review of Method 8270D SIM 1,4-Dioxane
Data for Alpha Analytical, SDG Number: L2447890**

**4 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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-6B.

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 WG1964624-2/3.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/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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Pesticide Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8081B Pesticide
Data for Alpha Analytical Labs
SDG Number: L2447980**

**11 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Blanks: The analyses of the method and field blanks reported target pesticides as not detected.

Surrogate Recovery: The surrogate recoveries were within QC limits on both columns for the ground water samples and field blank.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target pesticides were below the allowable maximum and the percent recoveries were within QC limits for aqueous MS/MSD sample MW-6B.

Laboratory Control Sample: The relative percent differences for target pesticides were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG1964642-2/3.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/DUP reported target pesticides as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Initial Calibration: The %RSDs were below the allowable maximum (20%) or the correlation coefficients were above the allowable minimum (0.995) for applicable pesticides on both columns, as required.

Continuing Calibration: The average %Ds for chlordane were above the allowable maximum (20%) for channel A & B on 08-28-24 (10240828a-04). The average %D for toxaphene was above the allowable maximum (20%) for channel A on 08-28-24 (10240828a-05). Positive results for these pesticides should be considered estimated (J) in associated samples.

DDT/Endrin Breakdown Check: The percent breakdowns were below the allowable maximum (20%) for 4,4'-DDT and endrin, as required.

Pesticide Identification Summary for Single Component Analytes: Checked surrogate results were within quantitation limits. The analyses of ground water samples reported target single component pesticides as not detected.

Pesticide Identification Summary for Multi-Component Analytes: The analyses of ground water samples reported target multi-component pesticides as not detected.

Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST10
 Lab File ID : 10240828a-04
 Sample No : WG1964824-2
 Channel : A

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 07:06
 Init. Calib. Date(s) : 07/17/24 07/19/24
 Init. Calib. Times : 12:09 11:50

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_Chlordane	1	1	-	0	20	98	0
chlordane-1	1000	1638.405	-	-63.8*	20	162	0
chlordane-3	1000	1316.703	-	-31.7*	20	124	0
chlordane-4	1000	1586.864	-	-58.7*	20	158	0
chlordane-5	1000	1590.709	-	-59.1*	20	154	0

Average %D = -53.3%

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST10
 Lab File ID : 10240828a-04
 Sample No : WG1964824-2
 Channel : B

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 07:06
 Init. Calib. Date(s) : 07/17/24 07/19/24
 Init. Calib. Times : 12:09 11:50

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_Chlordane	1	1	-	0	20	130	0
chlordane-1	1000	1264.319	-	-26.4*	20	161	0
chlordane-3	1000	1188.513	-	-18.9	20	153	0
chlordane-4	1000	1253.962	-	-25.4*	20	163	0
chlordane-5	1000	1234.758	-	-23.5*	20	159	0

Average %D = 23.6%

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST10
 Lab File ID : 10240828a-05
 Sample No : WG1964824-3
 Channel : A

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 07:17
 Init. Calib. Date(s) : 07/17/24 07/19/24
 Init. Calib. Times : 12:09 11:50

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1-br-2-nb_Toxaphene	1	1	-	0	20	108	0
toxaphene-1	0.047	0.059	-	-25.5*	20	135	0
toxaphene-2	0.043	0.055	-	-27.9*	20	133	0
toxaphene-4	0.038	0.052	-	-36.8*	20	141	0
toxaphene-5	0.045	0.057	-	-26.7*	20	133	0

Average %D = -29.2%

* Value outside of QC limits.



PCB Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Method 8082A PCB
Data for Alpha Analytical Labs
SDG Number: L2447890**

**11 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: The samples were extracted and analyzed within USEPA SW-846 holding times.

Blanks: The analyses of the method and field blanks reported target aroclors 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 aroclor 1016 and aroclor 1260 were below the allowable maximum and percent recoveries were within QC limits for aqueous MS/MSD sample MW-6B.

Laboratory Control Sample: The relative percent differences for aroclor 1016 and aroclor 1260 were below the allowable maximums and percent recoveries were within QC limits for aqueous samples WG1964696-2/3 and WG1965202-2/3.

Initial Calibration: The average %RSDs for target aroclors were below the allowable maximum (20%) on both columns, as required.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/DUP reported target aroclors as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Continuing Calibration: The average %Ds for aroclor 1016 and aroclor-1260 were below the allowable maximum (20%) for both columns, as required.

PCB Identification Summary: Checked surrogate results were within quantitation limits. The analyses of the ground water samples reported target aroclors as not detected.

PFAS

Data Section



**QA/QC Review of Method 1633 PFAS Data
for Alpha Analytical Labs SDG Number: L2447890**

**4 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Geology

Hydrology

Remediation

Water Supply

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 recoveries for PFASs were within QC limits (70-130%), as required.

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-6B.

Laboratory Control Sample: The percent recoveries for target PFAS were within QC limits for aqueous samples WG1972760-2 and WG1972760-3.

Field Duplicates: The relative percent differences for PFBA and PFOA were below the allowable maximum (20%) for aqueous field duplicate pair MW-9B/DUP (attached table), as required.

Compound ID: Checked detected surrogate and detected results were within LC quantitation limits.

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Herbicide Data Section



**QA/QC Review of 8151 Herbicide
Data for Alpha Analytical Labs
SDG Number: L2447890**

Geology

Hydrology

Remediation

Water Supply

**11 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: The samples were extracted and analyzed within USEPA SW 846 holding times.

Blanks: The analysis of the method blank reported target herbicides as not detected.

Surrogate Recovery: The surrogate recovery for samples MW-6C and MW-7C was above QC limits on one column. The positive results for herbicides should be considered estimated, biased high (J+) in the samples.

Matrix Spike/Matrix Spike Duplicate: The relative percent differences for target herbicides were below the allowable maximum and percent recoveries were within QC limits for aqueous MS/MSD sample MW-6B.

Laboratory Control Sample: The relative percent differences for target herbicides were below the allowable maximum and the percent recoveries were within QC limits for aqueous samples WG1963640-2/3 and WG1964244-2/3.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/DUP reported target herbicides as not detected; therefore, valid relative percent differences could not be calculated. The analyses for the field duplicate pair were acceptable.

Initial Calibration: The %RSDs for target herbicides were below the allowable maximum (20%) for both columns, as required.

Continuing Calibration: The %Ds for 2,4-D and 2,4,5-T were above the allowable maximum (15%) for channel A on 08-28-24 (17240828a-01). The %D for 2,4,5-T was above the allowable maximum (15%) for channel B on 08-28-24 (17240828a-01). The %Ds for 2,4,5-T were above the allowable maximum (15%) for channel A & B on 08-28-24 (17240828a-18). Positive results for 2,4-D and 2,4,5-TP should be considered estimated (J) in associated samples.

Herbicide Identification Summary: Checked surrogates were within GC quantitation limits. The analyses of ground water samples reported target herbicides as not detected.

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Surrogate Recovery Summary

Form 2

Pesticides

Client: Alpha Geoscience
Project Name: RANCO MINE

Lab Number: L2447890
Project Number: 12123
Matrix: Water

GC Column 1: STX-CLP1
GC Column 2: STX-CLP2

CLIENT ID (LAB SAMPLE NO.)	1 %REC	2 %REC	1 %REC	2 %REC	OTHER (1)	OTHER (2)	TOT OUT
MW-3A (L2447890-01)	140	119	--	--			0
MW-6A (L2447890-02)	144	122	--	--			0
MW-6B (L2447890-03)	145	122	--	--			0
MW-6C (L2447890-04)	161*	138	--	--			1
MW-7A (L2447890-05)	131	111	--	--			0
MW-7B (L2447890-06)	136	116	--	--			0
MW-7C (L2447890-07)	158*	133	--	--			1
MW-8A (L2447890-08)	149	127	--	--			0
MW-8B (L2447890-09)	118	101	--	--			0
MW-8C2 (L2447890-10)	120	104	--	--			0
MW-9B (L2447890-11)	130	111	--	--			0
DUP (L2447890-12)	138	116	--	--			0
FIELD BLANK (L2447890-13)	134	114	--	--			0
WG1963640-1BLANK	113	97	--	--			0
WG1963640-2LCS	110	111	--	--			0
WG1963640-3LCSD	109	109	--	--			0
MW-6BMS	107	135	--	--			0
MW-6BMSD	114	134	--	--			0
WG1964244-1BLANK	105	97	--	--			0
WG1964244-2LCS	109	161*	--	--			1
WG1964244-3LCSD	107	142	--	--			0

QC LIMITS
(30-150) S1 = DCAA

* Values outside of QC limits

FORM II HERB-APA



Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST17
 Lab File ID : 17240828a-01
 Sample No : WG1964814-1
 Channel : A

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 06:33
 Init. Calib. Date(s) : 07/12/24 07/12/24
 Init. Calib. Times : 14:41 16:13

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	1	1	-	0	15	111	0
Dalapon	0.147	0.198	-	-34.7*	15	153	0
DCAA (surrogate)	0.164	0.178	-	-8.5	15	120	0
Dicamba	0.547	0.533	-	2.6	15	110	0
MCPD	0.00077	0.00065	-	15.6*	15	89	0
MCPA	18.6	14.958	-	19.6*	15	89	0
Dichloroprop	0.153	0.174	-	-13.7	15	130	0
2,4-D	0.176	0.08	-	54.5*	15	52	0
2,4,5-TP (Silvex)	0.661	0.714	-	-8	15	123	0
2,4,5-T	0.607	0.763	-	-25.7*	15	144	0
2,4-DB	0.1	0.112	-	-12	15	128	0
Dinoseb	0.28	0.58	-	-107.1*	15	232	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST17
 Lab File ID : 17240828a-01
 Sample No : WG1964814-1
 Channel : B

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 06:33
 Init. Calib. Date(s) : 07/12/24 07/12/24
 Init. Calib. Times : 14:41 16:13

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	1	1	-	0	15	100	0
Dalapon	0.205	0.208	-	-1.5	15	105	0
DCAA (surrogate)	0.204	0.197	-	3.4	15	96	0
Dicamba	0.597	0.56	-	6.2	15	94	0
MCPD	0.00074	0.00069	-	6.8	15	91	0
MCPA	18.6	18.306	-	1.6	15	93	0
Dichloroprop	0.189	0.187	-	1.1	15	99	0
2,4-D	0.23	0.218	-	5.2	15	95	0
2,4,5-TP (Silvex)	0.826	0.746	-	9.7	15	90	0
2,4,5-T	0.791	0.615	-	22.3*	15	79	0
2,4-DB	0.13	0.114	-	12.3	15	89	0
Dinoseb	0.479	0.416	-	13.2	15	88	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST17
 Lab File ID : 17240828a-18
 Sample No : WG1964814-2
 Channel : A

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 15:48
 Init. Calib. Date(s) : 07/12/24 07/12/24
 Init. Calib. Times : 14:41 16:13

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	1	1	-	0	15	115	0
Dalapon	0.147	0.211	-	-43.5*	15	168	0
DCAA (surrogate)	0.164	0.177	-	-7.9	15	123	0
Dicamba	0.547	0.537	-	1.8	15	115	0
MCPD	0.00077	0.0006	-	22.1*	15	85	0
MCPA	18.6	14.207	-	23.6*	15	89	0
Dichloroprop	0.153	0.169	-	-10.5	15	131	0
2,4-D	0.176	0.201	-	-14.2	15	136	0
2,4,5-TP (Silvex)	0.661	0.714	-	-8	15	127	0
2,4,5-T	0.607	0.713	-	-17.5*	15	139	0
2,4-DB	0.1	0.102	-	-2	15	120	0
Dinoseb	0.28	0.515	-	-83.9*	15	213	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Pesticides

Client : Alpha Geoscience
 Project Name : RANCO MINE
 Instrument ID : PEST17
 Lab File ID : 17240828a-18
 Sample No : WG1964814-2
 Channel : B

Lab Number : L2447890
 Project Number : 12123
 Calibration Date : 08/28/24 15:48
 Init. Calib. Date(s) : 07/12/24 07/12/24
 Init. Calib. Times : 14:41 16:13

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
4,4'-DBOB	1	1	-	0	15	106	0
Dalapon	0.205	0.22	-	-7.3	15	117	0
DCAA (surrogate)	0.204	0.196	-	3.9	15	100	0
Dicamba	0.597	0.566	-	5.2	15	100	0
MCPD	0.00074	0.00066	-	10.8	15	92	0
MCPA	18.6	17.019	-	8.5	15	92	0
Dichloroprop	0.189	0.182	-	3.7	15	101	0
2,4-D	0.23	0.227	-	1.3	15	104	0
2,4,5-TP (Silvex)	0.826	0.751	-	9.1	15	95	0
2,4,5-T	0.791	0.657	-	16.9*	15	88	0
2,4-DB	0.13	0.108	-	16.9*	15	88	0
Dinoseb	0.479	0.462	-	3.5	15	103	0

* 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: L2447890**

**11 Ground Water Samples, 1 Field Duplicate,
1 Equipment Blank, and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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, and equipment blanks reported target metals as either not detected or below the reporting limits, as required.

FIELD BLANK contained dissolved sodium (0.250 mg/L) above the RL. Positive results for dissolved sodium that are less than 5 times the highest blank level should be considered not detected (U) in associated samples.

ICP Interference Check Sample: The percent recoveries for applicable metals were within control limits (80-120%).

Spike Sample Recovery: The percent recoveries for applicable metals were within control limits (75-125%) for aqueous total and dissolved spike sample MW6-B.

Laboratory Duplicates: The relative percent differences for applicable metals were below the allowable maximum (20%) for aqueous total and dissolved duplicate sample MW-6B, as required.

Field Duplicates: The relative percent differences (RPDs) for applicable metals were below the allowable maximum (20%) for aqueous total field duplicate pair MW-9B/DUP (attached table), as required.

The RPD for chromium was above the allowable maximum (20%) for aqueous dissolved field duplicate pair MW-9B/DUP (attached table). Positive dissolved results for chromium should be considered estimated (J) in samples MW-9B and DUP.

Laboratory Control Sample: The percent recoveries for target metals were within control limits (80-120%) for aqueous total samples WG1964440-2 and WG1964424-2, and aqueous dissolved samples WG1964418-2 and WG1964420-2.

Serial Dilution: The %Ds for applicable metals were below the allowable maximum (10%) for aqueous total dissolved and total serial dilution sample MW-6B, as required.

Total vs Dissolved: The dissolved results for sodium were greater than the total results plus 10% for samples MW-6A and MW-7C. The dissolved results for manganese were greater than the total results plus 10% for samples MW-6C and MW-9B. The dissolved result for chromium was greater than the total results plus 10% for sample DUP. Positive results for total and dissolved metals should be considered estimated (J) in the samples.

General Chemistry

Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Alkalinity Data for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Blanks: The analyses of the method blanks reported total alkalinity as not detected.

Spike Sample Recovery: The percent recovery for total alkalinity was within acceptable limits (75-125%) for aqueous batch spike sample L2447718-01.

Laboratory Duplicates: The relative percent difference for total alkalinity was below the allowable maximum (20%) for aqueous batch duplicate sample WG1963872-3, as required.

Field Duplicates: The relative percent difference for total alkalinity was below the allowable maximum (20%) for aqueous field duplicate pair MW-9B/DUP (attached table), as required.

Laboratory Control Sample: The percent recovery for total alkalinity was within QC limits (90-110%) for aqueous sample WG1963872-2.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Iodide Data for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: Samples were analyzed within USEPA SW 846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for iodide were within control limits (90-110%).

Blanks: The analyses of the initial, continuing, and 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-6B.

Laboratory Duplicates: The relative percent difference for iodide was below the allowable maximum (20%) for aqueous MS/MSD sample MW-6B, as required.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/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 3691617LCS.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Ammonia Data for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 DUP.

Laboratory Duplicates: The relative percent differences for ammonia were above the allowable maximum (20%) for aqueous duplicate samples MW-8C2 and DUP. 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 dissolved field duplicate pair MW-9B/DUP (attached table). Positive dissolved results for ammonia should be considered estimated (J) in samples MW-9B and DUP.

Laboratory Control Sample: The percent recovery for ammonia was within laboratory QC limits (90-110%) for aqueous sample WG1964497-2.

Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : MW-8C2
Lab Sample ID : L2447890-10
Dup Sample ID : WG1964497-3

Lab Number : L2447890
Project Number : 12123
Matrix : WATER
Analysis Date : 08/28/24 09:34
DUP Analysis Date : 08/28/24 09:36

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Ammonia	0.132	0.347	90 Q	20



Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : DUP
Lab Sample ID : L2447890-12
Dup Sample ID : WG1965074-3

Lab Number : L2447890
Project Number : 12123
Matrix : WATER
Analysis Date : 08/29/24 12:15
DUP Analysis Date : 08/29/24 12:17

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Ammonia	0.048J	0.308	146	20





Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Nitrate/Nitrite Data for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 recoveries for nitrate/nitrite were within acceptable limits (75-125%) for aqueous spike samples MW-3A and MW-6A.

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 relative percent difference for nitrate/nitrite was below the allowable maximum (20%) for aqueous field duplicate pair MW-9B/DUP (attached table), as required.

Laboratory Control Sample: The percent recovery for nitrate/nitrite was within laboratory QC limits (90-110%) for aqueous sample WG1964146-2.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Phosphate Data for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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-3A.

Laboratory Duplicates: The analysis of aqueous duplicate sample MW-3A was acceptable.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/DUP reported phosphate as either not detected or 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 recovery for phosphate within laboratory QC limits (84-118%) for aqueous sample WG1964457-2.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Sulfide Data for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: The following samples were analyzed beyond USEPA SW 846 holding times. The “not detected” results for these samples should be considered estimated (UJ).

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

Blanks: The analysis of the method blank reported sulfide as not detected.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/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 percent recoveries for sulfide were within laboratory QC limits (79.7-122%) for aqueous samples B384278-BS1 and B384282-BS1.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Total Kjeldahl Nitrogen Data (TKN) for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 spike samples MW-8B and MW-8C2.

Laboratory Duplicates: The relative percent differences for TKN were above the allowable maximum (20%) for aqueous duplicate samples MW-8B and MW-8C2. Positive results for TKN should be considered estimated (J) in associated aqueous samples.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/DUP reported TKN as either not detected or 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 WG1963995-2 and WG1963999-2.

Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : MW-8B
Lab Sample ID : L2447890-09
Dup Sample ID : WG1963995-3

Lab Number : L2447890
Project Number : 12123
Matrix : WATER
Analysis Date : 08/27/24 14:50
DUP Analysis Date : 08/27/24 14:52

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.171J	0.853	131	24



Form 6 Lab Duplicates

Client : Alpha Geoscience
Project Name : RANCO MINE
Client Sample ID : MW-8C2
Lab Sample ID : L2447890-10
Dup Sample ID : WG1963999-3

Lab Number : L2447890
Project Number : 12123
Matrix : WATER
Analysis Date : 08/27/24 14:05
DUP Analysis Date : 08/27/24 14:07

Parameter	Sample Concentration (mg/l)	Duplicate Concentration (mg/l)	RPD	RPD Limit
Nitrogen, Total Kjeldahl	0.447	0.655	38.0	24



TDS Data Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Total Dissolved Solids Data (TDS) for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 WG1964162-3 and WG1964162-4.

Field Duplicates: The relative percent difference for TDS was below the allowable maximum (20%) for aqueous field duplicate pair MW-9B/DUP (attached table), as required.

Laboratory Control Sample: The percent recovery for TDS was within QC limits (80-120%) for aqueous sample WG1964162-2.

Radiochemistry Section



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Uranium Data
for Alpha Analytical Labs
SDG Number: L2447890**

**4 Ground Water Samples, 1 Field Duplicate,
and 1 Field Blank
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

Holding Times: The samples were analyzed within USEPA SW-846 holding times.

Initial and Continuing Calibration Verification: The percent recoveries for uranium were within control limits (90-110%).

Blanks: The analyses of initial and continuing calibration, method, and field blanks reported uranium not detected.

ICP Interference Check Sample: The percent recovery for uranium was within control limits (80-120%).

Spike Sample Recovery: The percent recoveries for uranium were within QC limits (70-130%) for aqueous batch MS/MSD samples.

Laboratory Duplicates: The relative percent differences for uranium were below the allowable maximum (20%) for aqueous batch MS/MSD samples, as required.

Field Duplicates: The analyses of aqueous field duplicate pair MW-9B/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 R4119250-2.

Serial Dilution: The analysis of aqueous batch serial dilution sample was acceptable.



Geology

Hydrology

Remediation

Water Supply

**QA/QC Review of Ion Chromatography Data* for
Alpha Analytical Labs, SDG Number: L2447890**

**11 Ground Water Samples and 1 Field Duplicate
Collected August 20-21, 2024**

Prepared by: Donald Anné
October 17, 2024

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 for target analytes were within acceptable limits (75-125%) for the spike samples MW-3A and MW-9B.

Laboratory Duplicates: The relative percent differences for applicable analytes were below the allowable maximum (20%) for aqueous duplicate samples MW-3A and MW-9B, as required.

Field Duplicates: The relative percent differences for applicable target analytes were below the allowable maximum (20%) for aqueous field duplicate pair MW-9B/DUP (attached table), as required.

Laboratory Control Sample: The percent recoveries for target analytes were within laboratory QC limits (90-110%) for aqueous samples WG1964126-2 and WG1964127-2.

* ion chromatography includes bromide, chloride, fluoride, and sulfate.

Field Duplicate Calculation Section

Semi-Volatiles

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2447890

S1= MW-9B

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
Phenol	ND	1.4	NC
Naphthalene (SIM)	ND	0.05	NC
2-Methylnaphthalene (SIM)	ND	0.13	NC
Pentachlorophenol (SIM)	ND	0.06	NC
Hexachlorobenzene (SIM)	ND	0.01	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. L2447890

S1= MW-9B

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
Perfluorobutanoic Acid (PFBA)	9.57	9.24	4%
Perfluoroheptanoic Acid (PFHpA)	0.396	0.343	NC
Perfluorooctanoic Acid (PFOA)	3.22	3.29	2%

* RPD is above the allowable maximum (20%).

All results are in ng/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.

General Chemistries

Calculations for Field Duplicate Relative Percent Difference (RPD)

SDG No. L2447890

S1= MW-9B

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
Total Nitrogen	5.1	5.1	0%
Nitrogen, Total Kjeldahl	0.076	ND	NC
Nitrogen, Ammonia	0.217	0.048	128% *
Nitrogen, Nitrate/Nitrite	5.1	5.1	0%
Solids, Total Dissolved	74	81	9%
Sulfide	ND	ND	NC
Alkalinity, Total	12.1	11.3	7%
Phosphate, Total	0.015	ND	NC
Bromide	0.072	0.072	0%
Chloride	12.3	12.2	1%
Fluoride	ND	ND	NC
Sulfate	19.6	19.6	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. L2447890

S1= MW-9B

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>	
Radium-226	ND	0.168	NC	
Radium-228	1.38	0.502	93%	*
Thorium-228	0.065	0.003	182%	*
Thorium-230	0.06	ND	NC	
Thorium-232	0.091	0.009	164%	*

* 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. L2447890

S1= MW-9B

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>
aluminum	0.0114	0.00822	NC
antimony	ND	ND	NC
arsenic	ND	ND	NC
barium	0.04752	0.04662	2%
beryllium	ND	ND	NC
cadmium	ND	ND	NC
calcium	17.6	16.6	6%
chromium	0.0014	0.00096	NC
cobalt	ND	ND	NC
copper	ND	ND	NC
iron	ND	ND	NC
lead	ND	ND	NC
magnesium	2.65	2.57	3%
manganese	0.0026	0.00258	1%
mercury	ND	ND	NC
nickel	ND	ND	NC
potassium	2.5	2.34	7%
selenium	ND	ND	NC
silver	ND	ND	NC
sodium	7.37	7.41	1%
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. L2447890

S1= MW-9B

S2= DUP

<u>Analyte</u>	<u>S1</u>	<u>S2</u>	<u>RPD (%)</u>	
aluminum (dissolved)	0.00716	0.0144	NC	
antimony (dissolved)	ND	ND	NC	
arsenic (dissolved)	ND	ND	NC	
barium (dissolved)	0.04681	0.04615	1%	
beryllium (dissolved)	ND	ND	NC	
cadmium (dissolved)	ND	ND	NC	
calcium (dissolved)	17.4	16.3	7%	
chromium (dissolved)	0.00110	0.00141	25%	*
cobalt (dissolved)	ND	ND	NC	
copper (dissolved)	ND	ND	NC	
iron (dissolved)	ND	ND	NC	
lead (dissolved)	ND	ND	NC	
magnesium (dissolved)	2.68	2.51	7%	
manganese (dissolved)	0.00291	0.00295	1%	
mercury (dissolved)	ND	ND	NC	
nickel (dissolved)	ND	ND	NC	
potassium (dissolved)	2.4	2.34	3%	
selenium (dissolved)	ND	ND	NC	
silver (dissolved)	ND	ND	NC	
sodium (dissolved)	8.19	7.65	7%	
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.