



Hazen Research, Inc.
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Lab Control ID: 24H03106
Received: Oct 16, 2024
Reported: Nov 26, 2024
Purchase Order No.
None Received


Customer ID: 05377Z
Account ID: Z01034

Rebecca Manzanares
Colorado Analytical Laboratories, Inc.
10411 Heinz Way
Commerce City, CO 80640

ANALYTICAL REPORT

*Report may only be copied in its entirety.
Results reported herein relate only to discrete samples
submitted by the client. Hazen Research, Inc. does not warrant
that the results are representative of anything other than the
samples that were received in the laboratory*

Reviewed and approved by:



Roxanne Sullivan
Analytical Laboratories Director

Customer ID: 05377Z
 Account ID: Z01034

ANALYTICAL REPORT

Rebecca Manzanaras
 Colorado Analytical Laboratories, Inc.

Lab Sample ID			24H03106-001					
Customer Sample ID			241015151-01 - Perry Park Water & Sanitation - PWSID: CO0118045 - Sageport sampled on 10/15/24 @ 1200					
Parameter	Units	Code	Result	Precision* +/-	Detection Limit	Method	Analysis Date / Time	Analyst
Radium-226	pCi/L	T	1.4	0.4	0.2	SM 7500-Ra B	11/06/24 @ 1544	KT
Radium-228	pCi/L	T	2.5	0.7	0.2	EPA pg.19	11/18/24 @ 0940	KR

Certification ID's: CO/EPA CO00008

*Variability of the radioactive decay process (counting error) at the 95% confidence level, 1.96 sigma.

Codes: (T) = Total (D) = Dissolved (S) = Suspended (R) = Replicate Sample (AR) = As Received < = Less Than

Batch QC Summary Form

Analyte: Radium-226

Control Standard/LFB: ID: C73-007 pCi/mL: 10.55 (use 2 diluted)

Spike Solution: ID: C73-007 pCi/mL: 10.55 (use 2 mL)

Spike Recovery Calculation: Sample: 24H03107-02b

$$\text{Calculation: } \frac{(22.8) (1.000) - (0.6) (1.000)}{21.1} \times 100 = 105\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap			x

* Required for batch size greater than 10 samples.

Conclusions:

 x Batch QC Passes**
 Batch QC Fails
 Batch QC Passes, with exceptions**:

Reruns Required: _____

Narrative:

**All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

24H03102 _____
24H03103 _____
24H03104 _____
24H03105 _____
24H03106 _____
24H03107 _____
24H03108 _____
24H03110 _____

Evaluator:  _____

11/14/2024

Date

Batch QC Summary Form

Analyte: Radium-228

Control Standard/LFB: ID: C6-008 pCi/mL: 14.2 (use 5 diluted)

Spike Solution: ID: C6-008 pCi/mL: 14.2 (use 5 mL)

Spike Recovery Calculation: Sample: 24H03106-1c

$$\text{Calculation: } \frac{(61.8) (1.000) - (2.5) (1.000)}{71} \times 100 = 83.5\%$$

Batch QC Evaluation:

Parameter	Criteria	Pass	Fail	N/A
Control Std./LFB	+/- 20 %	x		
Spike Recovery	80 - 120 %	x		
Blank	< or = 3 x Uncertainty	x		
Duplicate 1	95% confidence interval overlap	x		
Duplicate 2 *	95% confidence interval overlap			x

* Required for batch size greater than 10 samples.

Conclusions:

 x Batch QC Passes**
 Batch QC Fails
 Batch QC Passes, with exceptions**:

Reruns Required: _____

Narrative:

**All QC data provided in this section of the report met the acceptance criteria specified in the analytical methods and procedures. State Maximum Contamination Levels (MCLs) are not evaluated in this report.

Batch Listing by Lab Control Number:

24H03103 _____
24H03104 _____
24H03105 _____
24H03106 _____
24H03107 _____
24H03108 _____
24H03109 _____

Evaluator:
 _____

11/25/2024

 Date



24H 03106

Ship To: Hazen Research
 Preserved: Y/N
 HNO3 Lot #: N/A
 Date Preserved: N/A

Report To Information Company Name: Colorado Analytical Laboratory Report To: Rebecca Manzanares E-Mail: rebeccamanzanares@coloradolab.com Address: 10411 Heinz Way Commerce City, CO 80640 Phone: 303-659-2313	Bill To Information: (if different from report to) Address: CAL TASK 241015151 JAK	Project Name CO0118045 Perry Park Water & Sanitation Compliance Samples: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Submit Data to CDPHE: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Tests Requested

Sample Date/Time	Sample ID	Matrix	Radium 226 (Sub)	Radium 228 (Sub)	Container Type
10/15/24 12:00 PM	241015151-01 - Sageport	Water - Drinking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4 - 1L - Unpreserved

Comment:

Initial pH Check on 10/17/24
 11:08 pH 7.9
 Secondary pH Check on 10/18/24
 13:20 pH 7.2

6.6°C

Relinquished by: (Signature) <i>ghadamant</i>	Date: Time: 10/16/24 8:00	Received by: (Signature) <i>[Signature]</i>	Date: Time: 10/16/24 12:10	Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:
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