

January 10, 2019

Rob King  
Hampton Bays Water District  
P.O. Box 1013  
Hampton Bays, NY 11946

RE: Project: RADS 12/19  
Pace Project No.: 7074489

Dear Rob King:

Enclosed are the analytical results for sample(s) received by the laboratory on December 21, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Stu Murrell  
stu.murrell@pacelabs.com  
(631)694-3040  
Project Manager

Enclosures

cc: Warren Booth, Hampton Bays Water District  
John Collins, H2M Group  
Stella Michaels, Hampton Bays Water District  
Paul Ponturo, H2M Group



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: RADS 12/19

Pace Project No.: 7074489

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### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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### SAMPLE SUMMARY

Project: RADS 12/19

Pace Project No.: 7074489

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
7074489001	S-15687	Drinking Water	12/20/18 14:00	12/21/18 12:15

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**SAMPLE ANALYTE COUNT**

Project: RADS 12/19  
Pace Project No.: 7074489

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
7074489001	S-15687	EPA 900.0	NEG	2	PASI-PA
		EPA 903.1	MK1	1	PASI-PA
		EPA 904.0	JLW	1	PASI-PA

**REPORT OF LABORATORY ANALYSIS**

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: RADS 12/19

Pace Project No.: 7074489

**Sample: S-15687**      **Lab ID: 7074489001**      Collected: 12/20/18 14:00      Received: 12/21/18 12:15      Matrix: Drinking Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	<b>0.347 ± 1.09 (2.85)</b> C:NA T:NA	pCi/L	01/02/19 08:50	12587-46-1	
Gross Beta	EPA 900.0	<b>0.972 ± 0.782 (1.55)</b> C:NA T:NA	pCi/L	01/02/19 08:50	12587-47-2	
Radium-226	EPA 903.1	<b>0.302 ± 0.314 (0.445)</b> C:NA T:94%	pCi/L	01/09/19 20:25	13982-63-3	
Radium-228	EPA 904.0	<b>0.0701 ± 0.299 (0.682)</b> C:75% T:84%	pCi/L	01/08/19 14:45	15262-20-1	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: RADS 12/19

Pace Project No.: 7074489

QC Batch: 325192

Analysis Method: EPA 900.0

QC Batch Method: EPA 900.0

Analysis Description: 900.0 Gross Alpha/Beta

Associated Lab Samples: 7074489001

METHOD BLANK: 1585069

Matrix: Water

Associated Lab Samples: 7074489001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	-0.186 ± 0.410 (1.03) C:NA T:NA	pCi/L	01/02/19 08:49	
Gross Beta	-0.043 ± 0.512 (1.34) C:NA T:NA	pCi/L	01/02/19 08:49	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: RADS 12/19

Pace Project No.: 7074489

QC Batch: 325211

Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0

Analysis Description: 904.0 Radium 228

Associated Lab Samples: 7074489001

METHOD BLANK: 1585085

Matrix: Water

Associated Lab Samples: 7074489001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.225 ± 0.302 (0.645) C:83% T:87%	pCi/L	01/08/19 11:27	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: RADS 12/19

Pace Project No.: 7074489

QC Batch: 325217

Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1

Analysis Description: 903.1 Radium-226

Associated Lab Samples: 7074489001

METHOD BLANK: 1585089

Matrix: Water

Associated Lab Samples: 7074489001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.340 ± 0.444 (0.732) C:NA T:82%	pCi/L	01/09/19 20:25	

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## QUALIFIERS

Project: RADS 12/19

Pace Project No.: 7074489

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RADS 12/19

Pace Project No.: 7074489

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<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
7074489001	S-15687	EPA 900.0	325192		
7074489001	S-15687	EPA 903.1	325217		
7074489001	S-15687	EPA 904.0	325211		

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# Sample Condition Upon Receipt

Client Name: HBW

Project

WO#: **7074489**

PM: SWM Due Date: 01/16/19

CLIENT: HBW

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  Yes  No Seals intact:  Yes  No

Temperature Blank Present:  Yes  No

Packing Material:  Bubble Wrap  Bubble Bags  Ziploc  None  Other

Type of Ice: Wet Blue  None

Thermometer Used: TH001

Correction Factor: 0.0

Samples on ice, cooling process has begun

Cooler Temperature (°C): 10.3

Cooler Temperature Corrected (°C): 10.3

Date/Time 5035A kits placed in freezer \_\_\_\_\_

Temp should be above freezing to 6.0°C

USDA Regulated Soil ( N/A, water sample)

Date and Initials of person examining contents: JC 12/2/18

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)?  YES  NO

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes  No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

			COMMENTS:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	7.
Sufficient Volume: (Triple volume provided for MS/MSD)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Containers Intact:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	12.
-Includes date/time/ID/Analysis Matrix SL <input checked="" type="checkbox"/> OIL			
All containers needing preservation have been checked	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> HCl
pH paper Lot # <u>HC857466</u>			Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed: Lot # of added preservative: Date/Time preservative added
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis			
Samples checked for dechlorination:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Positive for Res. Chlorine? Y N
KI starch test strips Lot #			
Residual chlorine strips Lot #			
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present:	<input type="checkbox"/> Yes	<input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if applicable):			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_