



*Ft. Myers Lab02
10090 Bavaria Rd.
Fort Myers, FL 33913
TEL: (239) 590-0337 FAX: (239) 590-0536
Website: www.sanderslabs.net*

September 07, 2022

Desoto County
2170 N.E. Roan Street
Arcadia, FL 34266
TEL: (863) 491-7500
FAX:

RE: Lonesome Mine

Order No.: 2208490

Dear :

Sanders Laboratories, Inc received 1 sample(s) on 8/12/2022 for the analyses presented in the following report.

These results only pertain to the samples as received. These pages may include, but are not limited to: Analytical Data, Chains of Custodies, Subcontracted Data and Case Narratives for samples. Results relate only to the samples in the report.

Reports are archived for a minimum of 5 years. Copies of reports are available for a fee of \$50.00. Copies will be provided within 2 weeks of the time of the request. Laboratory PQL's are available upon request.

Test results meet all the requirements of the NELAP standards, unless otherwise noted.
Nokomis Certificate # E84380 Fort Myers Certificate # E85457

A statement of estimated uncertainty of results is available upon request.
Laboratory report shall not be reproduced except in full, without the written approval of Sanders Laboratories.

Sanders Laboratories follows DEP standard operating procedures for field sampling, unless otherwise noted.

A handwritten signature in blue ink, appearing to read "Katie".

Katie Strothman
Laboratory Director



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Definition Only

WO#: 2208490
Date: 9/7/2022

Definitions:

B: Results based upon colony counts outside the acceptable range.

G: Sample value indicates that the analyte was detected at or above the method detection limit in both the sample and the associated field blank, equipment blank, or trip blank, and the blank value was greater than 10% of the associated sample value. The value in the blank shall not be subtracted from associated samples. Also if the RPD on a field duplicate exceeds allowable control limit.

I: The reported value is greater than or equal to the laboratory MDL but less than the laboratory PQL.

J: Estimated Value.

J7: Excessive amounts of Sodium Sulfite used to dechlorinate the sample due to high levels of chlorine present.

K: Off scale low, actual value is known to be less than the value given.

L: Off scale high, actual value is known to be greater than the value given.

NC: Not Certified. Parameter was ran but is not covered under laboratory accredited scopes.

Q: Sample held beyond acceptable holding time.

U: The compound was analyzed for, but not detected.

V: Indicates that the analyte was detected at or above the MDL in both the sample and the associated method blank and the value of 10 times the blank value was equal to or greater than the associated sample value.

Y: The laboratory analysis was from an improperly preserved sample.

Z: Too many colonies were present for accurate counting.



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Analytical Report

(continuous)

WO#: **2208490**

Date Reported: **9/7/2022**

CLIENT: Desoto County
Project: Lonesome Mine

Lab Order: 2208490

Lab ID: 2208490-001
Client Sample ID: Outfall (Mine)

Collection Date: 8/12/2022 10:35:00 AM
Matrix: SURFACE WATER

| Analyses | Result | MDL | Qual | Units | DF | Date Analyzed |
|-------------------------------|--------|--------|------|---------------------|----|----------------------|
| TOTAL NITROGEN | | | | E351.2 | | Analyst: GC |
| Nitrogen, Total | 2.11 | 0.0300 | | mg/L | 1 | 8/19/2022 2:31:00 PM |
| TOTAL PHOSPHOROUS | | | | E365.4 | | Analyst: GC |
| Phosphorus, Total (As P) | 0.714 | 0.0200 | | mg/L | 1 | 8/19/2022 2:31:00 PM |
| CHLOROPHYLL A | | | | A10200H | | Analyst: GC |
| Chlorophyll a | 24.6 | 1.00 | | mg/m ³ | 1 | 8/12/2022 2:19:00 PM |
| Chlorophyll A, Corrected | 24.6 | 1.00 | | mg/m ³ | 1 | 8/12/2022 2:19:00 PM |
| Pheophytin | 12.1 | 1.00 | | mg/m ³ | 1 | 8/12/2022 2:19:00 PM |
| FLUORIDE | | | | A4500-F-C | | Analyst: PS |
| Fluoride | 1.60 | 0.100 | | mg/L | 1 | 8/19/2022 9:30:00 AM |
| SULFATE | | | | ASTM-D516-90 | | Analyst: EH |
| Sulfate | 180 | 1.00 | | mg/L | 1 | 8/16/2022 4:26:00 PM |
| TOTAL SUSPENDED SOLIDS | | | | A2540D | | Analyst: PS |
| Residue, Suspended Solids | 3.9 | 0.6 | | mg/L | 1 | 8/14/2022 1:00:00 PM |
| FIELD PARAMETERS | | | | FLD | | Analyst: |
| Conductivity, EPA 120.1 | 610 | 1.0 | | umhos/cm | | |
| Dissolved Oxygen, EPA 360.1 | 5.96 | 0.10 | | mg/L | | |
| pH,EPA 150.1 | 7.59 | 0.01 | | S.U. | | |
| Salinity | 0.29 | 0.01 | | ppt | | |
| Water Level | 1 | 0.01 | | feet | | |

| | | | | |
|--------------------|----|--|----|---|
| Qualifiers: | H | Holding times for preparation or analysis exceeded | ND | Not Detected at the Reporting Limit |
| | PL | Permit Limit | RL | Reporting Detection Limit |
| | U | Samples with CalcVal < MDL | W | Sample container temperature is out of limit as specified at testcode |



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Analytical Report

(continuous)

WO#: **2208490**

Date Reported: **9/7/2022**

CLIENT: Desoto County
Project: Lonesome Mine

Lab Order: 2208490

| | | | | |
|--------------------|----|--|----|---|
| Qualifiers: | H | Holding times for preparation or analysis exceeded | ND | Not Detected at the Reporting Limit |
| | PL | Permit Limit | RL | Reporting Detection Limit |
| | U | Samples with CalcVal < MDL | W | Sample container temperature is out of limit as specified at testcode |



CHAIN OF CUSTODY RECORD

Workorder #
(Lab Use Only)

2208490

Client: Desoto county
 Address: King Fries
 Phone: _____

Email: S. Walker@desotoboc.com Project Name: _____
 Report To: Sara Walker Project Location: Lanesville Mine
 Bill to: _____ Permit #: _____
 P.O. #: _____ Kit #: _____

Preservative: HCL = H, HNO₃ = N, Na₂S₂O₃ = ST/Thio

H₂SO₄ = S, NaOH = SH, NH₄Cl = NH AA=Ascorbic Acid

Requested Due Date: _____

| Sampled By (PRINT) <u>Christian Bonilla</u> | | | | | Preservatives | | | | | Analysis Requested | | | | | | | | | | Sample ID # (Lab Use Only) | |
|---|--|-----------|---------|---------------------------------------|-----------------------------|--|--|--|--|--------------------|-------|-------------------------|-------|----------|----|-----|-------------|-------|-------|-------------------------------|------------|
| Sampler Signature <u>Christian Bonilla</u> | | | | | Sample | | | | | TSS | TSS | SO ₄ F | TN/TP | Chloro-A | AS | FUG | gross alpha | Rads | field | | |
| Matrix | Sample Description | Date | Time | Type (G=grab/C=comp) | PH | | | | | | | | | | | | | | | | |
| SW | outfall (mine) | 8/12/2010 | 35 | G | 20 | | | | | X | | | | | | | | | | | 8/12/10 IA |
| | | | | | | | | | | | X | | | | | | | | | | IA |
| | | | | | | | | | | | | X | | | | | | | | | IB |
| | | | | | | | | | | | | | X | | | | | | | | IC |
| | | | | | | | | | | | | | | X | | | | | | | ID |
| | | | | | 20 | | | | | | | | | | X | | | | | | IE |
| | Added 3ml HNO ₃ lot R12620/198547 to IE | | | | | | | | | | | | | | X | | | | | | IF |
| | Added 4ml HNO ₃ lot R126005547 to IH | | | | 45, 20 | | | | | | | | | | | X | X | X | | | IG, IH |
| Bottle Lot # | Chem ID | Exp Date | Comment | Okay to Run As Is... | Relinquished By/Affiliation | | | | | Date | Time | Accepted By/Affiliation | | | | | Date | Time | | | |
| 10 | | | | Client Initial: | <u>Christian Bonilla</u> | | | | | 8/12/22 | 12:40 | <u>[Signature]</u> | | | | | 8/12/22 | 12:40 | | | |
| 8038207 | | | | Samples On Ice (thermal preservation) | | | | | | | | | | | | | | | | | |
| 2098007 | | | | Temp °C ↓ | | | | | | | | | | | | | | | | | |
| 2-0664 | | | | Yes No | | | | | | | | | | | | | | | | | |
| 2066018 (12/0534) | | | | 60.5 °C | | | | | | | | | | | | | | | | | |



Date: 8/12/22
 Field Tech: Kent Halbert Chris Stewart
 Location: Desoto

| Site | Time | Flow* Ft/sec or tidal change | Total Depth ft | Sample Depth (ft) | Water Temp EPA 170.1 (C) | DO EPA 360.1 (mg/L) | DO (%) | Cond EPA 120.1 (umhos /cm) | Salinity M 250B (ppm) | pH EPA 150.1 (std units) | Turbidity EPA 180.1 (NTU) | Weather | | Air Temp (C) | Secchi (ft) |
|---------|------|------------------------------------|-------------------|----------------------|-----------------------------|---------------------------|-----------|-------------------------------------|--------------------------|-----------------------------------|------------------------------------|-------------|------|-----------------|--------------------|
| | | | | | | | | | | | | Cloud Cover | Wind | | |
| Outfall | 1035 | | 5 | 1 | 29.0 | 5.96 | 68.6 | 610 | 0.29 | 7.59 | | 20% | | | |
| | | | | | | | | | | | | | | | |
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| Tests/Bottles/Preservatives: | |
|------------------------------|--------------|
| Lot # | Preservative |
| 250P | 8058006 ICE |
| 500 P | |
| 1LP | |
| 2LP | |
| Other | |

| Equipment Used: (circle) | | | | | |
|--------------------------|-------------|-------|-----------|----------|------|
| Dip Stick | | | 3 | Secchi | 4999 |
| Chlorine | 0604D047281 | | | | |
| Multi | Turb | Depth | Peri Pump | Sub Pump | |
| 18G102286 | 18051731 | 7307 | 3976 | OO1637 | |

Comments:

Date Revised: 5/19/2020 Form ID: FF-03 Approved by: KS

250P 2066-018 H209
 | | H2524

September 06, 2022

Tami Bright
Sanders Laboratories, Inc.
1050 Endeavor Court
Nokomis, FL 34275

RE: Project: 2208490
Pace Project No.: 35740166

Dear Tami Bright:

Enclosed are the analytical results for sample(s) received by the laboratory on August 16, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Charlotte
- Pace Analytical Services - Ormond Beach
- Pace Analytical Services - Greensburg

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

Sincerely,



Brad Smith
brad.smith@pacelabs.com
(386) 672-5668
Project Manager

Enclosures

cc: Sanders Labs Reporting (Email), Sanders Laboratories,
Inc.
Katie Strothman, Sanders
Katie Strothman, Sanders Laboratories, Inc.



REPORT OF LABORATORY ANALYSIS

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

Project: 2208490
Pace Project No.: 35740166

Pace Analytical Services Pennsylvania

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
Florida: Cert E871149 SEKS WET
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 #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maine Certification #: FL01264
Maryland Certification: #346
Massachusetts Certification #: M-FL1264
Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Ohio DEP 87780
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2208490
Pace Project No.: 35740166

Pace Analytical Services Ormond Beach

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006
9800 Kinsey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006

South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 2208490
Pace Project No.: 35740166

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|-------------|-------------|--------|----------------|----------------|
| 35740166001 | 2208490-001 | Water | 08/12/22 10:35 | 08/16/22 11:35 |

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2208490
Pace Project No.: 35740166

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|-------------|-------------|-----------|----------|-------------------|------------|
| 35740166001 | 2208490-001 | EPA 1664B | REL | 1 | PASI-C |
| | | EPA 200.8 | LEC | 1 | PASI-O |
| | | EPA 900.0 | KET | 1 | PASI-PA |
| | | EPA 903.1 | SLC | 1 | PASI-PA |
| | | EPA 904.0 | VAL | 1 | PASI-PA |

PASI-C = Pace Analytical Services - Charlotte
PASI-O = Pace Analytical Services - Ormond Beach
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2208490
Pace Project No.: 35740166

Sample: 2208490-001 **Lab ID: 35740166001** Collected: 08/12/22 10:35 Received: 08/16/22 11:35 Matrix: Water

| Parameters | Results | Units | PQL | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|--------------|-------|--------|---------|----|----------------|----------------|-----------|------|
| HEM, Oil and Grease | | | | | | | | | |
| Analytical Method: EPA 1664B Pace Analytical Services - Charlotte | | | | | | | | | |
| Oil and Grease | 1.1 U | mg/L | 5.1 | 1.1 | 1 | | 08/25/22 23:00 | | |
| 200.8 MET ICPMS | | | | | | | | | |
| Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Ormond Beach | | | | | | | | | |
| Arsenic | 0.011 | mg/L | 0.0010 | 0.00050 | 1 | 08/24/22 02:22 | 08/24/22 11:52 | 7440-38-2 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2208490
Pace Project No.: 35740166

| | |
|----------------------------|--|
| QC Batch: 719673 | Analysis Method: EPA 1664B |
| QC Batch Method: EPA 1664B | Analysis Description: 1664 HEM, Oil and Grease |
| | Laboratory: Pace Analytical Services - Charlotte |

Associated Lab Samples: 35740166001

METHOD BLANK: 3750858 Matrix: Water

Associated Lab Samples: 35740166001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|----------------|-------|--------------|-----------------|-----|----------------|------------|
| Oil and Grease | mg/L | 1.1 U | 5.0 | 1.1 | 08/25/22 23:00 | |

LABORATORY CONTROL SAMPLE: 3750859

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|----------------|-------|-------------|------------|-----------|--------------|------------|
| Oil and Grease | mg/L | 40 | 35.6 | 89 | 78-114 | |

MATRIX SPIKE SAMPLE: 3750860

| Parameter | Units | 35740651001 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|----------------|-------|--------------------|-------------|-----------|----------|--------------|------------|
| Oil and Grease | mg/L | 1.8 I | 38.8 | 34.4 | 84 | 78-114 | |

SAMPLE DUPLICATE: 3750861

| Parameter | Units | 35740810002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|----------------|-------|--------------------|------------|-----|---------|------------|
| Oil and Grease | mg/L | 7.4 | 8.9 | 18 | 30 | |

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2208490
Pace Project No.: 35740166

QC Batch: 850609 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35740166001

METHOD BLANK: 4680287 Matrix: Water
Associated Lab Samples: 35740166001

| Parameter | Units | Blank Result | Reporting Limit | MDL | Analyzed | Qualifiers |
|-----------|-------|--------------|-----------------|---------|----------------|------------|
| Arsenic | mg/L | 0.00050 U | 0.0010 | 0.00050 | 08/24/22 13:33 | |

LABORATORY CONTROL SAMPLE: 4680288

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|-----------|-------|-------------|------------|-----------|--------------|------------|
| Arsenic | mg/L | 0.05 | 0.051 | 103 | 85-115 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4680289 4680290

| Parameter | Units | 35739603001 | | 4680289 | | 4680290 | | % Rec Limits | RPD | Max RPD | Qual | |
|-----------|-------|-------------|------------|----------------|-----------------|-----------|------------|--------------|-----|---------|------|----------|
| | | MS Result | MSD Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | MS % Rec |
| Arsenic | mg/L | 0.50 U | 0.50 | 0.05 | 0.05 | 0.053 | 0.051 | 106 | 102 | 70-130 | 3 | 20 |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4680291 4680292

| Parameter | Units | 35741812001 | | 4680291 | | 4680292 | | % Rec Limits | RPD | Max RPD | Qual | |
|-----------|-------|-------------|------------|----------------|-----------------|-----------|------------|--------------|-----|---------|------|----------|
| | | MS Result | MSD Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | | | | | MS % Rec |
| Arsenic | mg/L | 0.013 | 0.013 | 0.05 | 0.05 | 0.066 | 0.066 | 107 | 105 | 70-130 | 1 | 20 |

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2208490
Pace Project No.: 35740166

| Parameters | Method | Act ± Unc (MDC) Carr Trac | Units | Analyzed | CAS No. | Qual |
|--|---------------------------------------|--|-------|----------------|------------|------|
| Sample: 2208490-001 Lab ID: 35740166001 Collected: 08/12/22 10:35 Received: 08/16/22 11:35 Matrix: Water PWS: Site ID: Sample Type: | | | | | | |
| | Pace Analytical Services - Greensburg | | | | | |
| Gross Alpha | EPA 900.0 | 9.74 ± 2.72 (2.03) C:NA T:NA | pCi/L | 08/26/22 18:35 | 12587-46-1 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-226 | EPA 903.1 | 0.946U ± 0.510 (0.946) C:NA T:96% | pCi/L | 08/30/22 12:07 | 13982-63-3 | |
| | Pace Analytical Services - Greensburg | | | | | |
| Radium-228 | EPA 904.0 | 1.18U ± 0.504 (1.18) C:70% T:63% | pCi/L | 09/02/22 15:18 | 15262-20-1 | |

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2208490
Pace Project No.: 35740166

| | |
|----------------------------|---|
| QC Batch: 527683 | Analysis Method: EPA 903.1 |
| QC Batch Method: EPA 903.1 | Analysis Description: 903.1 Radium-226 |
| | Laboratory: Pace Analytical Services - Greensburg |

Associated Lab Samples: 35740166001

METHOD BLANK: 2560349 Matrix: Water

Associated Lab Samples: 35740166001

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|---------------------------------|-------|----------------|------------|
| Radium-226 | 0.000 ± 0.484 (1.02) C:NA T:65% | pCi/L | 08/30/22 11:32 | |

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2208490
Pace Project No.: 35740166

| | |
|----------------------------|---|
| QC Batch: 528065 | Analysis Method: EPA 900.0 |
| QC Batch Method: EPA 900.0 | Analysis Description: 900.0 Gross Alpha/Beta |
| | Laboratory: Pace Analytical Services - Greensburg |

Associated Lab Samples: 35740166001

METHOD BLANK: 2562034 Matrix: Water

Associated Lab Samples: 35740166001

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|-------------|--------------------------------|-------|----------------|------------|
| Gross Alpha | 0.656 ± 0.708 (1.37) C:NA T:NA | pCi/L | 08/28/22 12:50 | |

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2208490
Pace Project No.: 35740166

| | |
|----------------------------|---|
| QC Batch: 527685 | Analysis Method: EPA 904.0 |
| QC Batch Method: EPA 904.0 | Analysis Description: 904.0 Radium 228 |
| | Laboratory: Pace Analytical Services - Greensburg |

Associated Lab Samples: 35740166001

METHOD BLANK: 2560353 Matrix: Water

Associated Lab Samples: 35740166001

| Parameter | Act ± Unc (MDC) Carr Trac | Units | Analyzed | Qualifiers |
|------------|-----------------------------------|-------|----------------|------------|
| Radium-228 | 0.272 ± 0.373 (0.796) C:80% T:67% | pCi/L | 09/02/22 15:16 | |

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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QUALIFIERS

Project: 2208490
Pace Project No.: 35740166

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

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.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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.

ANALYTE QUALIFIERS

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U Compound was analyzed for but not detected.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2208490

Pace Project No.: 35740166

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|-------------|-------------|-----------------|----------|-------------------|------------------|
| 35740166001 | 2208490-001 | EPA 1664B | 719673 | | |
| 35740166001 | 2208490-001 | EPA 200.8 | 850609 | EPA 200.8 | 850622 |
| 35740166001 | 2208490-001 | EPA 900.0 | 528065 | | |
| 35740166001 | 2208490-001 | EPA 903.1 | 527683 | | |
| 35740166001 | 2208490-001 | EPA 904.0 | 527685 | | |

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CHAIN OF CUSTODY RECORD

Omega COCID 20240

PAGE: 1

OF: 1

WO#: 35740166



35740166

ADDRESS: Nokomis Lab01, 1050 Endeavor Court, Nokomis, FL 34275, TEL: (941) 234-1000, FAX: (941) 484-6774, Website: www.sanderslabs.net

Form with fields for SUB CONTRACTOR (Pace), COMPANY (Pace Analytical), ADDRESS (8 East Tower Circle, Ormond Beach, FL 32174), PHONE (386) 676-4837, FAX (386) 673-4001, and ACCOUNT #.

SPECIAL INSTRUCTIONS / COMMENTS:

Table with columns: ITEM #, SAMPLE ID, CLIENT SAMPLE ID, BOTTLE TYPE, MATRIX, DATE COLLECTED, NUMBER OF CONTAINERS, COMMENTS. Contains 4 rows of sample data.

Form for chain of custody with fields for Relinquished By, Received By, Date, Time, and checkboxes for Standard, RUSH, and 3rd BD. Includes a note: 'Note: RUSH requests will incur surcharges!'.



WO#: 35740166

Project #
Project Manager:
Client:

PM: BTS **Due Date: 08/23/22**
CLIENT: SANLAB

Date and Initials of person:
Examining contents: AS
Label: _____
Deliver: _____
pH: _____

Thermometer Used: T-394 Date: 8.16.22 Time: 1215 Initials: KAS

State of Origin: _____ For WV projects, all containers verified to $\leq 6^\circ\text{C}$

- Cooler #1 Temp. °C 5.3 (Visual) 0.0 (Correction Factor) 5.3 (Actual) Samples on ice, cooling process has begun
- Cooler #2 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual) Samples on ice, cooling process has begun
- Cooler #3 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual) Samples on ice, cooling process has begun
- Cooler #4 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual) Samples on ice, cooling process has begun
- Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual) Samples on ice, cooling process has begun
- Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual) Samples on ice, cooling process has begun
- Recheck for OOT °C _____ (Visual) _____ (Correction Factor) _____ (Actual) Time: _____ Initials: _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Shipping Method: First Overnight Priority Overnight Standard Overnight Ground International Priority
 Other _____

Billing: Recipient Sender Third Party Credit Card Unknown

Tracking # 8166 0944 6567

Custody Seal on Cooler/Box Present: Yes No **Seals intact:** Yes No **Ice:** Wet Blue Melted None

Packing Material: Bubble Wrap Bubble Bags None Other _____

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

Comments:

| | | |
|--|--|---|
| Chain of Custody Present | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Chain of Custody Filled Out | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Relinquished Signature & Sampler Name COC | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Samples Arrived within Hold Time | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Rush TAT requested on COC | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A | |
| Sufficient Volume | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Correct Containers Used | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Containers Intact | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Sample Labels match COC (sample IDs & date/time of collection) | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| All containers needing acid/base preservation have been checked. | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | Preservation Information: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____ |
| All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: Vials, Microbiology, O&G, PFAS | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Headspace in VOA Vials? (>6mm): | <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A | |
| Trip Blank Present: | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A | |

Comments/ Resolution (use back for additional comments):

