From: Maybelle Sparks To: Elizabeth Rorie Subject: FW: [EXTERNAL] DMR QA 43 Date: Friday, September 22, 2023 8:15:17 AM Attachments: image001.png

Please upload to Waterlog. Thanks!



Environment & Conservation

Maybelle Sparks, P.E. | Environmental Protection Specialist Division of Water Resources | Water Based Systems William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 11th Floor Nashville, Tennessee 37243 Office: 615-532-0651 Fax: 615-532-0686 Maybelle.Sparks@tn.gov tn.gov/environment

We are happy to help! Please let us know how we are doing by filling out this short customer satisfaction <u>survey</u>.

From: Copperhill Water & Sewer <copperhillws@gmail.com> Sent: Friday, September 22, 2023 7:21 AM To: Maybelle Sparks < Maybelle.Sparks@tn.gov> Subject: [EXTERNAL] DMR QA 43

*** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. ***

Morning Maybelle here is our DMR-QA 43 study for City of Copperhill id no, TN0024449

USEPA DMR-QA 43

NPDES PERMITTEE DATA REPORT FORM

aye u ui iu



A Waters Company

| Due Sentember 20. 20 | USEPA NPDES | TN0024449 | |
|---|---|---|---|
| Due September 29, 20 | DZ3 Permit #: | Permit Ext: | |
| Permittee Name: City of Copper I | | | |
| | | | |
| Facility Address: | | | |
| | | | |
| | | I FERRER FROM THE FORMER FROM | |
| City: | | State: Postal Code: | |
| | | 5.1 U | |
| Phone Number: (423) 496-7023 | | Fax Number: | |
| | | | |
| E-mail address: chillwwt@etcma | ail com | | |
| | | | |
| | | | |
| Optional: If WP study was used, lis | t PT provider name: | Optional: WP study number(s): | |
| | | | |
| For DMRQA-43, conducted in 2023, the Pe | ermittee ensured that their laborat | tory(s) performing the required analyses: | |
| ï | Submitted Complete an | | |
| Received PT Samples | August 4, 2023 | d Accurate Data by Received a Graded Report by September 1, 2023 | |
| Yes 🗹 No 🔲 | Yes 🗹 N | ° □ Yes I No □ | |
| Each reported value was produced from | a single analytical run using | Neither I nor any of my subordinates compared our results with | |
| the analytical system that routinely pe produce compliance monitoring data | rforms these analyses to under our NPDES permit. | results from independent analyses conducted by us or any other laboratory before we reported our results to U.S. EPA. | |
| Yes 🔽 No 🔽 | | Yes No | |
| | Certification by Permit Ho | blder or Authorized Representative | _ |
| I certify under penalty of law that this docum | ent and all attachments were prepar | ed under mu direction or supervision in considerate with a sector of the state of the | |
| qualities personnel property dattier and eval | ate the information submitted. Base | ed on my inquiry of the person or persons who manage the system, or those persons directly of my knowledge and belief, true, assurate and semalate, i am aways that they are | V |
| Name of | | | |
| Certifying Official: Joseph Allen | | Title: WWTP Operator/Lab Analyst | |
| | | | |
| Signature: | L all | Date Signed: 9 / / 3 / 23 | |
| Mailing Address: 160 Main Street | | | |
| (enter only if different from address above) | | | |
| | | | |
| City: Copper Hill | | State: TN Postal Code: 37317 | |
| | | | |
| Phone Number: (423) 496-7023 | | E-mail address: chillwwt@etcmail.com | |
| 1 4 7 | <u> </u> | | |

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

| | | Laborato | | |
|--|---------------|------------|--|--|
| Analyte Test / Method | Test Required | Acceptable | Not Acceptable (Corrective Action Required) | Analyte determined by state-certified lab |
| Demand | | | (concerne Action Required) | State-certified lab |
| BOD | | | | |
| SM 5210 B-2011 | | - | | 100 |
| CBOD | | | | |
| COD | | | | |
| тос | | | | |
| Oil & Grease Concentrate | | | | |
| n-Hexane Extractable Material(O&G) | | | | |
| (Grav) | | | | |
| Oil & Grease | | | | |
| n-Hexane Extractable Material(O&G) | | | | |
| (Grav) | | | | |
| n-Hexane Extractable Material(O&G) | | | | |
| (IR) | | | | |
| Trace Metals | | | | |
| Aluminum | | | | |
| Antimony | | | | |
| Arsenic | | | | |
| Barium | | | | |
| Beryllium | | | | |
| Boron | | | | |
| Cadmium | | | | |
| Chromium | | | | |
| Cobalt | | | | |
| Copper | | | | |
| Iron | | | | |
| Lead | | | | |
| Manganese | | | | |
| Molybdenum | | | | |
| Nickel | | | | |
| Selenium | | | | |
| Silver | | | | |
| Strontium Thallium | | | | |
| Vanadium | | | | |
| Zinc | | | | |
| Mercury | | | | |
| | | | | |
| Mercury Low-Level Mercury | | | | |
| and the second sec | | | | |
| Low Level Mercury Hexavalent Chromium | | | | |
| the second se | | | | 2 |
| Hexavalent Chromium | | | | |
| Turbidity | | | | |
| Turbidity | | | | |

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

| | | Laborato | | |
|---|---------------|-------------|--|--|
| Analyte Test / Method | Test Required | Acceptable | Not Acceptable (Corrective Action Required) | Analyte determined by state-certified lab |
| Minerals Alkalinity as CaCO3 Chloride Conductivity at 25°C Fluoride Potassium Sodium Sulfate Total Dissolved Solids at 180°C Total Solids at 105°C Hardness | | | | |
| Total Suspended Solids SM 2540 D-1997 Calcium Magnesium Calcium Hardness as CaCO3 Total Hardness as CaCO3 | ø | \boxtimes | | |
| pH pH SM 4500-H+ B-2000 | X | X | | |
| Settleable Solids Settleable Solids EPA 160.5 Solids Concentrate | 2 | X | | |
| Total Suspended Solids Total Dissolved Solids at 180°C Total Solids at 105°C Solids | | | | |
| Total Suspended Solids Total Dissolved Solids at 180°C Total Solids at 105°C Simple Nutrients | | | | |
| Ammonia as N Nitrate + Nitrite as N Nitrate as N ortho-Phosphate as P Total Nitrogen Complex Nutrients | | | | |
| Total Kjeldahl Nitrogen Total phosphorus as P Nitrite Nitrite as N | | | | |



rayeruliu

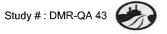
DMR-QA 43 Final Report

A Waters Company

NPDES Permit #: TN0024449 Permit Holder: Joseph Allen WWTP Operator/Lab Analyst City of Copper Hill (423) 496-7023 ERA Customer Number: Report Issued: Study Dates: C365215 09/01/2023 05/19/2023 - 08/04/2023

| TNI \nalyte Code | Analyte | Units | Performance Evaluation | Reported Value | Assigned Value | Acceptance Limits | Method Description | Study Mean | Study Standard Deviation | USEPA Lab Code | Study |
|------------------------|-----------------------------------|--------------------|---------------------------|-------------------|-------------------|----------------------|------------------------|------------|--------------------------------|-------------------|---------|
| MRQA | WasteWatR™ Coliform MicrobE™ - SM | 1 9221 (cat# 576A, | ot# Q043-083A) | | | | | | | | |
| 2525 | E.coli (MPN-Multiple Tube) | MPN/100mL | Acceptable | 56 | 202 | 28.8 - 1440 | SM 9221 A-1999 1999 | 234 | 101 | TN01259 | DMRQA43 |









DMR-QA 43 Final Report

A Waters Company

NPDES Permit #: TN0024449 Permit Holder: Joseph Allen WWTP Operator/Lab Analyst City of Copper Hill (423) 496-7023

ERA Customer Number: Report Issued: Study Dates: C365215 09/01/2023 05/19/2023 - 08/04/2023

| | - | 1 | | | 1 | 1 | 6 | | | |
|---|--|--|---|---|--|--|--|---|--|--|
| Analyte | Units | Performance Evaluation | Reported Value | Assigned Value | Acceptance Limits | Method Description | Study Mean | Study Standard Deviation | USEPA Lab Code | Study |
| Hardness (cat# 580, lot# Q043-507) | | | | | | | | | | |
| Total Suspended Solids | mg/L | Acceptable | 49.6 | 49.9 | 38.7 - 57.1 | SM 2540 D-1997 1997 | 49.1 | 2.53 | TN01259 | DMRQA43 |
| рН (cat# 577, lot# Q043-977) | | | | | | | | | | |
| рН | S.U. | Acceptable | 8.98 | 8.91 | 8.71 - 9.11 | SM 4500-H+ B-2000 2000 | 8.91 | 0.115 | TN01259 | DMRQA43 |
| Settleable Solids (cat# 883, lot# Q043- | 911) | | | | | | | | | |
| Settleable Solids | mL/L | Acceptable | 32 | 35.4 | 29.2 - 44.6 | EPA 160.5 1979 | 37.4 | 4.12 | TN01259 | DMRQA43 |
| Demand (cat# 578, lot# Q043-516) | | | | | | | | | | |
| BOD | mg/L | Not Acceptable | 50 | 127 | 68.5 - 185 | SM 5210 B-2011 2011 | 126 | 23.9 | TN01259 | DMRQA43 |
| Total Residual Chlorine (cat# 587, lot# | Q043-501) | | | | | | | | | |
| Total Residual Chlorine | mg/L | Acceptable | 1.59 | 1.54 | 1.14 - 1.82 | SM 4500-CI G-2000 2000 | 1.48 | 0.114 | TN01259 | DMRQA43 |
| | Hardness (cat# 580, lot# Q043-507) Total Suspended Solids pH (cat# 577, lot# Q043-977) pH Settleable Solids (cat# 883, lot# Q043- Settleable Solids Demand (cat# 578, lot# Q043-516) BOD Total Residual Chlorine (cat# 587, lot# | Hardness (cat# 580, lot# Q043-507) Total Suspended Solids mg/L pH (cat# 577, lot# Q043-977) pH S.U. Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids mL/L Demand (cat# 578, lot# Q043-516) BOD mg/L Total Residual Chlorine (cat# 587, lot# Q043-501) | Analyte Units Evaluation Hardness (cat# 580, lot# Q043-507) Total Suspended Solids mg/L Acceptable pH (cat# 577, lot# Q043-977) mg/L Acceptable pH S.U. Acceptable Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids mL/L Settleable Solids mL/L Acceptable Demand (cat# 578, lot# Q043-516) mg/L Not Acceptable Total Residual Chlorine (cat# 587, lot# Q043-501) Acceptable | AnalyteUnitsEvaluationValueHardness (cat# 580, lot# Q043-507)Total Suspended Solidsmg/LAcceptable49.6pH (cat# 577, lot# Q043-977)pHS.U.Acceptable8.98Settleable Solids (cat# 883, lot# Q043-911)Settleable SolidsmL/LAcceptable32Demand (cat# 578, lot# Q043-516)BODmg/LNot Acceptable50Total Residual Chlorine (cat# 587, lot# Q043-501) | AnalyteUnitsEvaluationValueValueHardness (cat# 580, lot# Q043-507)Total Suspended Solidsmg/LAcceptable49.649.9pH (cat# 577, lot# Q043-977)pHS.U.Acceptable8.988.91Settleable Solids (cat# 883, lot# Q043-911)Settleable Solids (cat# 883, lot# Q043-911)Settleable SolidsmL/LAcceptable3235.4Demand (cat# 578, lot# Q043-516)BODmg/LNot Acceptable50127Total Residual Chlorine (cat# 587, lot# Q043-501) | Analyte Units Evaluation Value Value Limits Hardness (cat# 580, lot# Q043-507) mg/L Acceptable 49.6 49.9 38.7 - 57.1 Total Suspended Solids mg/L Acceptable 49.6 49.9 38.7 - 57.1 pH (cat# 577, lot# Q043-977) S.U. Acceptable 8.98 8.91 8.71 - 9.11 Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids 32 35.4 29.2 - 44.6 Demand (cat# 578, lot# Q043-516) mg/L Not Acceptable 50 127 68.5 - 185 Total Residual Chlorine (cat# 587, lot# Q043-501) Not Acceptable 50 127 68.5 - 185 | Analyte Units Evaluation Value Value Limits Method Description Hardness (cat# 580, lot# Q043-507) Method Description Total Suspended Solids mg/L Acceptable 49.6 49.9 38.7 - 57.1 SM 2540 D-1997 1997 1997 pH (cat# 577, lot# Q043-977) Acceptable 8.98 8.91 8.71 - 9.11 SM 4500-H+ B-2000 2000 Settleable Solids (cat# 883, lot# Q043-911) 2000 Settleable Solids (cat# 883, lot# Q043-911) 32 35.4 29.2 - 44.6 EPA 160.5 1979 Demand (cat# 578, lot# Q043-516) 2011 2011 BOD mg/L Not Acceptable 50 127 68.5 - 185 SM 5210 B-2011 2011 Total Residual Chlorine (cat# 587, lot# Q043-501) | Analyte Units Evaluation Value Value Limits Method Description Study Mean Hardness (cat# 580, lot# Q043-507) Total Suspended Solids mg/L Acceptable 49.6 49.9 38.7 - 57.1 SM 2540 D-1997 1997 49.1 pH (cat# 577, lot# Q043-977) pH S.U. Acceptable 8.98 8.91 8.71 - 9.11 SM 4500-H+ B-2000 2000 8.91 Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids mL/L Acceptable 32 35.4 29.2 - 44.6 EPA 160.5 1979 37.4 Demand (cat# 578, lot# Q043-516) mg/L Not Acceptable 50 127 68.5 - 185 SM 5210 B-2011 2011 126 Total Residual Chlorine (cat# 587, lot# Q043-501) mg/L Not Acceptable 50 127 68.5 - 185 SM 4500-Cl G-2000 1.48 | Analyte Units Evaluation Value Value Limits Method Description Study Mean Standard Deviation Hardness (cat# 580, lot# Q043-507) Total Suspended Solids mg/L Acceptable 49.6 49.9 38.7 - 57.1 SM 2540 D-1997 1997 49.1 2.53 pH (cat# 577, lot# Q043-977) pH S.U. Acceptable 8.98 8.91 8.71 - 9.11 SM 4500-H+ B-2000 2000 8.91 0.115 Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids (cat# 883, lot# Q043-911) Settleable Solids mL/L Acceptable 32 35.4 29.2 - 44.6 EPA 160.5 1979 37.4 4.12 Demand (cat# 578, lot# Q043-516) BOD mg/L Not Acceptable 50 127 68.5 - 185 SM 5210 B-2011 2011 126 23.9 Total Residual Chlorine (cat# 587, lot# Q043-501) Total Residual Chlorine (cat# 587, lot# Q043-501) 150 154 144 182 SM 4500-CI G-2000 148 0.114 | Analyte Units Performance Evaluation Reported Value Assigned Value Acceptance Limits Method Description Study Mean Standard Deviation USEPA Lab Code Hardness (cat# 580, lot# Q043-507) Total Suspended Solids mg/L Acceptable 49.6 49.9 38.7 - 57.1 SM 2540 D-1997 1997 49.1 2.53 TN01259 pH (cat# 577, lot# Q043-977) S.U. Acceptable 8.98 8.91 8.71 - 9.11 SM 4500-H+ B-2000 2000 8.91 0.115 TN01259 Settleable Solids (cat# 883, lot# Q043-911) S.U. Acceptable 32 35.4 29.2 - 44.6 EPA 160.5 1979 37.4 4.12 TN01259 Demand (cat# 578, lot# Q043-501) mg/L Acceptable 50 127 68.5 - 185 SM 5210 B-2011 2011 126 23.9 TN01259 Demand (cat# 587, lot# Q043-501) Total Acceptable 50 127 68.5 - 185 SM 5200-C1 G-2000 2011 1.48 0.114 TN01259 |



Study # : DMR-QA 43



United States Environmental Protection Agency Office of Enforcement and Compliance Assurance **DMR-QA Study 43**

OMB Control No. 2080-0021 Approval expires 05/31/2023

2023

(This data is collected under the authority of Section 308 of the Clean Water Act.)

| Permittee Name | | NPDES Permit Nu | Permit Extension | | | | |
|--------------------|--|----------------------|------------------|----------------------------------|----------|--------------|------------------------------|
| City of Copperhill | | TN 🔽 0 0 | | [1] | 31 L | | |
| Identification of | all CHEM, MICRO and WET labo | ratories who per | formed | analys | es for t | his peri | nit |
| Laboratory Name | Laboratory Address | U.S. EPA Lab Code | La | b Analys box(es) tha Micro | sis | Lab Type* | State- certified Lab** |
| City of Copperhill | Po Box 640 Copperhill Tn.37317 | T N O 1 2 5 9 | \boxtimes | \boxtimes | | G 🗗 | |
| Pace Analytical | 12065 Leabon Rd, Mount Juliet Tn, 37122 | T N 0 0 0 3 | \boxtimes | | | - | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

* Lab Types: C = Commercial; F = Federal; G = Local Government; I = Industrial; O = Other; S = State

** See Footnotes 2, 3, and 4 on page 5 (Frequently Asked Questions) for the current list of states with lab accreditation programs

If you need additional space, please make a copy of this page for additional laboratories.

NPDES Permit No: TN0024449 EPA Lab Code: TN00003

Chemistry/Microbiology Analyte Checklist

| | | DIVIRQA | 43 | | |
|--------------------------------|------------------|----------------------------------|------------|--|---|
| | | | Labor | atory's Graded Result | |
| Analyte Test | Test Required | Method Number Used (optional) | Acceptable | Not Acceptable (Corrective Action Required) | Analyte determined by state-certified Lab* |
| Microbiology | 1 | | | (concerned reaction required) | |
| E. Coli., MF or MPN | | | | | |
| Fecal Coliform, MF or MPN | | | | | |
| Total Coliform, MF or MPN | | | | | |
| Trace Metals | | | | | |
| Aluminum | | | | | |
| Antimony | | | | | |
| Arsenic | | | | | |
| Barium | | | | | |
| Beryllium | | | | | |
| Cadmium | | | | | |
| Chromium, total | | | | | |
| Chromium, hexavalent | | | | | |
| Cobalt | | | | | |
| Copper | | | | | |
| Iron | | | | | |
| Lead | | | | | |
| Manganese | | | | | |
| Mercury | | | | | |
| Molybdenum | | | | | |
| Nickel | | | | | |
| Selenium | | | | | |
| Silver | | | | | |
| Thallium | | | | | |
| Vanadium | | | | | |
| Zinc | m | | | | |
| Demands | | | | | |
| 5-day BOD | | | | | |
| 5-day Carbonaceous BOD | | | | | |
| COD | | | | | |
| TOC | | | | | |
| Minerals | | | | | |
| Alkalinity, total (CaCO3) | | | | | |
| Chloride | | | | | |
| Fluoride | | | | | |
| Hardness, total (CaCO3) | | | | | |
| Specific conductance (25°C) | | | | | |
| Sulfate | | | | | |
| Total Dissolved Solids (180°C) | | | | | |
| Nutrients | | 1 | | | |
| Ammonia as N | | 1 | [[] | | |
| Nitrate as N | X | EPA 353.2 Rev.2 1993 | X | | |
| Nitrite as N | X | LI A 333.2 Nev.2 1393 | | | |
| Orthophosphate as P | | | | | |
| Total Kjeldahl-Nitrogen as N | | EPA 351.2 Rev.2 1993 | X | | |
| Total Phosphorous as P | X | EPA 200.7 Rev.4.4 1994 | X | | |
| Misc. Analytes | | LI A 200.7 Rev.4.4 1984 | | | |
| Non-Filterable Residue (TSS) | | | | | |
| Oil and Grease | | | | | |
| pH | | | | | |
| Total Cyanide | | | | | |
| Total Phenolics (4-AAP) | | | | | |
| Total Residual Chlorine | | | | | |
| Settleable Solids | | | | | |
| Turbidity | | | | | |
| | | A- | | 1111 | |
| Name Todd Did | Bed | T Signati | ure Hald N | un- | Date |

Page12





 6390 Joyce Drive
 Phone
 303-940-0033

 # 100
 Fax
 866-283-0269

 Golden, CO 80403
 www.phenova.com

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DMRQA43 Graded Results Report

Study: WP0123 for DMRQA43

Opening Date: January 9, 2023 - Closing Date: February 23, 2023

EPA Lab ID: TN00003

Laboratory: Environmental Science Corp. dba: Pace Analytical National Center for Testing & Innovation 12065 Lebanon Rd Mt. Juliet, TN 37122 USA Mrs. Fallon Labeots 615-773-9776

Nutrients 2 - Complex (PT-NUT2-WP)

| NELAC Code | Analyte | Method Code | Method Description | Units | Assigned Value | Result | Acceptance Limits | Evaluation |
|---------------|-------------------------------|----------------|------------------------------------|-------|-------------------|--------------|----------------------|------------|
| 1795 | Total Kjeldahl Nitrogen (TKN) | 10065404 | EPA 351.2 Rev.2 1993 | mg/L | 20.5 | 19 | 15.4 - 24.9 | Acceptable |
| 1795 | Total Kjeldahl Nitrogen (TKN) | 20120256 | SM 4500-Norg D Rev.20th ED 1997 | mg/L | 20.5 | 19 | 15.4 - 24.9 | Acceptable |
| 1795 | Total Kjeldahl Nitrogen (TKN) | 20120278 | SM 4500-Norg D-1997 | mg/L | 20.5 | 19 | 15.4 - 24.9 | Acceptable |
| 1795 | Total Kjeldahl Nitrogen (TKN) | 20120289 | SM 4500-Norg D-2011 | mg/L | 20.5 | 19 | 15.4 - 24.9 | Acceptable |
| 1910 | Total Phosphorus | 10013806 | EPA 200.7 Rev.4.4 1994 | mg/L | 1.79 | 1.78 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 10155609 | EPA 6010B 1996 | mg/L | 1.79 | 1.85 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 10155905 | EPA 6010C 2007 | mg/L | 1.79 | 1.85 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 10155916 | EPA 6010D 2014 | mg/L | 1.79 | 1.85 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 10070005 | EPA 365.1 Rev.2 1993 | mg/L | 1.79 | 1.74 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 10071202 | EPA 365.4 1974 | mg/L | 1.79 | 1.81 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 20123802 | SM 4500-P E Rev.20th ED 1997 | mg/L | 1.79 | 1.81 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 20124225 | SM 4500-P E-2011 | mg/L | 1.79 | 1.8 1 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 20124601 | SM 4500-P F Rev.20th ED 1997 | mg/L | 1.79 | 1.81 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 20125024 | SM 4500-P F-2011 | mg/L | 1.79 | 1.81 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 20123200 | SM 4500-P B5 Rev.20th ED 1997 | mg/L | 1.79 | 1.81 | 1.44 - 2.13 | Acceptable |
| 1910 | Total Phosphorus | 20123368 | SM 4500-P B5-2011 | mg/L | 1.79 | 1.81 | 1.44 - 2.13 | Acceptable |

NPDES Permit ID: TN0024449 Permittee Name: CITY OF COPPER HILL





6390 Joyce Drive # 100 Golden, CO 80403 Phone 303-940-0033 Fax 866-283-0269 www.phenova.com

DMRQA43 Graded Results Report

Study: WP0123 for DMRQA43

Opening Date: January 9, 2023 - Closing Date: February 23, 2023

EPA Lab ID: TN00003

Laboratory: Environmental Science Corp. dba: Pace Analytical National Center for Testing & Innovation 12065 Lebanon Rd Mt. Juliet, TN 37122 USA Mrs. Fallon Labeots 615-773-9776

Nutrients 1 - Simple (PT-NUT1-WP)

| Nut | rients 1 - Simple (PT-NUT1-WP) | | | | | | Lot | #: 8240-1 0 |
|---------------|--------------------------------|----------------|------------------------------------|-------|-------------------|--------|----------------------|--------------------|
| NELAC Code | Analyte | Method Code | Method Description | Units | Assigned Value | Result | Acceptance Limits | Evaluation |
| 1810 | Nitrate as N | 10067604 | EPA 353.2 Rev.2 1993 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 20114403 | SM 4500-NO3? E Rev.20th ED 1998 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 20115826 | SM 4500-NO3? E-2011 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 20116205 | SM 4500-NO3? F Rev.20th ED 1997 | mg/L | 18.8 | 18.5 | 15.7 - 2 1.8 | Acceptable |
| 1810 | Nitrate as N | 20117628 | SM 4500-NO3? F-2011 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 10199607 | EPA 9056A 2007 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 10199209 | EPA 9056 1994 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 20076919 | SM 4110 B-2011 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 20076602 | SM 4110 B Rev 20th ED 1997 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 20117684 | SM 4500-NO3? F-2016 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |
| 1810 | Nitrate as N | 10053200 | EPA 300.0 Rev.2.1 1993 | mg/L | 18.8 | 18.5 | 15.7 - 21.8 | Acceptable |

NPDES Permit ID: TN0024449

Permittee Name: CITY OF COPPER HILL

Chemistry/Microbiology Analyte Checklist

DMRQA Study 43

| | 4 | Laborate | ory's Graded Result | | |
|--|---------------|------------|--|--|--|
| Analyte Test / Method | Test Required | Acceptable | Not Acceptable (Corrective Action Required) | Analyte determined by state-certified lab | |
| Total Cyanide | | | | | |
| Cyanide, total Amenable Cyanide Available Cyanide Total Phenolics (4-AAP) | | | | | |
| Phenolics, total | | | | | |
| Total Residual Chlorine | | | | | |
| Free Residual Chlorine Total Residual Chlorine SM 4500-Cl G-2000 | X | X | Π | | |
| Low-Level Total Residual Chlorine | | | | <u>U</u> | |
| Low Level Total Residual Chlorine | | | | | |
| WasteWatR™ Coliform MicrobE™ | | | | | |
| Total Coliforms (MF) Fecal Coliforms (MF) E.coli (MF) Total Coliform (MPN-Multiple Well) | | | | | |
| Fecal Coliform (MPN-Multiple Well) E.coli (MPN-Multiple Well) | | | | | |
| WasteWatR™ Coliform MicrobE™ - SM 9221 | | | | | |
| Total Coliform (MPN-Multiple Tube) Fecal Coliform (MPN-Multiple Tube) E.coli (MPN-Multiple Tube) | | | | | |
| SM 9221 A-1999 | ĸ | X | | | |

In Dilbert ame

Signature/Title

9-13-2023 Date

Use a separate checklist for EACH lab used