Town of Waynesville, NC
Board of Aldermen Regular Meeting

Town Hall, 9 South Main Street, Waynesville, NC 28786
Date: June 22, 2021 Time: 6:00 p.m.

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A. CALL TO ORDER - Mayor Gary Caldwell

1. Welcome/Calendar/Announcements

B. PUBLIC COMMENT

C. CONSENT AGENDA:

All items below are routine by the Board of Aldermen and will be enacted by one motion. There will be no separate discussion on these items unless a Board member so requests. In which event, the item will be removed from the Consent Agenda and considered with other items listed in the Regular Agenda.

i. Adoption of minutes of the June 3rd Special Called meeting
ii. Approval of Special Event Permits –
Pig Pickin Back to School Bash – First United Methodist Church
Apple Harvest Festival

D. PRESENTATION

2. Presentation of 2 Hero Awards
- Police Chief David Adams, Fire Chief Joey Webb, and Haywood County EMS Director Travis Donaldson

E. PUBLIC HEARING

3. Public Hearing for the 2021/2022 proposed budget

4. Text Amendments to the Land Development Standards for compliance with NCGS 160D
- Olga Grooman, Attorney Anna Stearns

***Motion*: 1) To find that the updates to the Land Development Standards are consistent with the 2035 Comprehensive Land Use Plan.**

***Motion**: 2) To find that the 160D updates are in the public interest because they bring the Land Development Standards in compliance with the new law.*

***Motion**: 3) To adopt the attached text amendments to Land Development Standards as presented (or as amended).*

5. Public Hearing for June 22, 2021 to consider additional changes to the Town of Waynesville Code of Ordinances for compliance with NCGS 160D.
    - Olga Grooman, Attorney Anna Stearns

***Motion**: To adopt the attached text amendments to the Town Ordinance as presented (or as amended).*

F. NEW BUSINESS

6. Contract for Interim Town Attorney Ron Sneed

***Motion:** To approve the contract*

7. Appointment of a Town of Waynesville Representative to the Haywood County Planning Board.
    - Elizabeth Teague, Development Services Director

***Motion**: To appoint Ginger Hain as the Town's representative to the Haywood County Planning Board.*

8. Audit Proposal
    - Autumn Lyvers, Finance Director

***Motion**: To approve the audit proposal and authorize the Mayor to sign the Contract to Audit Accounts*.

9. Budget amendment for rehabilitation of "Old Haywood County Hospital" (Brookmont Lofts)
    - Autumn Lyvers, Finance Director

***Motion**: To approve the budget amendment as presented.*

10. Grant Project Ordinance establishing a Special Revenue Fund to account for grant revenues and related expenditures, including funds to be received under the American Rescue Plan Act of 2021 (ARP).
    - Autumn Lyvers, Finance Director

***Motion**: To adopt the attached Grant Project Ordinance 1) authorizing the Finance Director to set up a special revenue fund to account for multiyear grant activity and 2) appropriating $973,000 of ARP funds for expenditures outlined above*

11. Reimbursement Resolution for Fire Station #2.1 associated costs
    - Rob Hites, Town Manager

***Motion**: To adopt the pre-payment resolution*

12. Refinancing of USDA and BB&T Loan including purchase of fire station land
    - Town Manager Rob Hites

***Motion**: To request Bob Jessup and the staff to draft an RFP to be sent out to lending institutions and determine if refinancing the debt would be advantageous to the Town.*

13. Approve purchase of 3.6 acres of property located at Mosaic Place
    - Rob Hites, Town Manager

***Motion**: To Approve the purchase of the 3.67 site located a 33 Mosaic Drive for a purchase price of $405,000 dollars and to appropriate the funds from the General Fund Balance. (The additional $5,000 is intended to cover closing costs, attorney's fees, etc.)*

14. Manager's Report
    - Town Manager Rob Hites

15. Town Attorney Report
    - Interim Town Attorney Ron Sneed

G. COMMUNICATIONS FROM THE MAYOR AND BOARD

16. Board discussion concerning adjustments to the Downtown Municipal Service District
    - Alderman Anthony Sutton

H. OTHER BUSINESS

G. CLOSED SESSION

***Motion**: To enter into Closed Session in accordance with North Carolina General Statute 143-318.11 (3) (4) to consult with the Interim Town Attorney to preserve attorney/client privilege and to discuss matters relating to the relocation or expansion of an industry or business.*

I. ADJOURN

MINUTES OF THE TOWN OF WAYNESVILLE BOARD OF ALDERMEN
Special Called Meeting
June 3, 2021

THE WAYNESVILLE BOARD OF ALDERMEN held a special meeting on Thursday June 3, 2021 at 10:00 a.m. in the Town Hall Board Room located at 9 South Main Street Waynesville, NC.

A. CALL TO ORDER

Mayor Gary Caldwell called the meeting to order at 10:05 am with the following members present:

Mayor Gary Caldwell
Mayor Pro Tem Julia Freeman
Alderman Anthony Sutton
Alderman Jon Feichter
Alderman Chuck Dickson

The following staff members were present:

Rob Hites, Town Manager
Jesse Fowler, Assistant Town Manager
Eddie Ward, Town Clerk
Autumn Lyvers, Finance Director
Rhett Langston, Recreation Director
Joey Webb, Fire Chief
David Adams Police Chief
Donald Hummel, Facilities/Athletic Manager

The following media representative was present:

Becky Johnson, The Mountaineer
Vickie Hyatt, The Mountaineer

A. <u>Call to Order/Welcome</u>

Mayor Gary Caldwell welcomed everyone and reminded everyone in attendance that Town business should not be conducted on social media.

Town Manager Rob Hites asked Autumn Lyvers, Finance Director, to present the Board with an overview of the proposed Fiscal Year 2021/2022 annual Budget.

Ms. Lyvers explained that the total proposed operating budget for FY22 is $35,241,007.00 which is about 2.2 million over last year's budget, with the increase being in the General Fund and the Electric Fund. Because it is a reappraisal year, the Town is statutorily required to calculate our

revenue neutral rate, 41.27, which is the tax rate that would keep tax rates at the same level. To increase revenues for the Town the proposed tax rate is 45.42. Ms. Lyvers gave an example of a property valued $250,000.00 at the current rate, and the revenue neutral the property would be valued at $312,500.00 with an increase of $50.44. The proposed tax rate would increase taxes in the amount of $180.14.

The next revenue source is sales tax. The Town is seeing an increase of 8% -20% of growth each month from the same time the prior year. She said there were several drivers behind the increase including stimulus relief, unemployment assistance, online purchases, and our location being a tourist town. The proposed budget for the FY 2021/2022 is $3.5 million including a 4% growth estimate over the current year. Ms. Lyvers propose a conservative growth estimate of 4% over current year actuals/estimates.

In the general fund balance the proposed appropriation is $1,390,714.00. She is suggesting that a portion of this money be used for one-time expenditures such as capital, information technology, and non-capital equipment that payment is not recurring. Expenditures from the general fund show an increase in personnel and fringe benefits with an increase of 7.5% because of the mandated state retirement increase, health insurance, and proposed pay study increases phase one for $190,000.00 and phase two for $250,000.00. Also included is career track at $218,460.00 and Fire Department part time employees $126,958.00.

The operating expenditures includes Town of Waynesville Task Force for Homelessness, new recycling containers, cemetery software, police vests, Recreation Software upgrade, and First Due software for the Fire Department. Ms. Lyvers said that Special Appropriations had been increased to $62,184 which was the second highest expenditure from the General Fund. $495,000.00 has been budgeted from Capital Outlay for the purchase of land for the Fire Department.

In the Water Fund the proposed budget is just above 3.5 million and there is a 2% decrease from the current year's budget due to some debt service that was paid off. She said there will be no increase in rates or fees. The projected available fund balance is about $2,000,000.00 at the end of June. The budget for the Sewer fund is over 3.8 million which is an increase of 9% over last year's budget. The increase is because of a loan processing payment that will have to be paid as part of the ongoing Waste-Water Treatment Plant project. There is a 10% increase in the sewer rates which is part of the multi-year increase to pay the debt of the project. Ms. Lyvers said the electric fund is budgeted at just over 10.7 million, which in an increase of 6% over last year. This increase is due to capital projects, and there is no requested change in rates.

Alderman Anthony Sutton said he proposed that the $15.00 vehicle tax should be dropped for reimbursement of the recycle containers. There was much discussion concerning money for street maintenance how it would zeros out with the recycle containers. Alderman Jon Feichter stated he wanted to make sure that the money would be dedicated to streets and sidewalks.

Alderman Chuck Dickson said that he agreed with eliminating the vehicle tax and reduce the tax rate to 41¢. He said we must remember who we represent, and this was not the year to be increasing taxes when the Town is getting so much money in. The Town of Waynesville should set the standard because the Town is in good shape and could afford to do it. He gave several suggestions on saving money and consolidating loans. One of the suggestions was to eliminate monies to non-profits that are not specific to the Town. By doing this, Alderman Dickson said the Town could have a revenue neutral tax rate, and that tax rate could be lowered. He reminded the Board of the debts that were going to be paid off soon and how that would affect the budget.

Alderman Sutton stated he felt that the cost of providing services in the Town, and bringing employees pay up to the minimum of what other towns are paying is very important.

Alderwoman Julia Freeman said that with the rising cost of everything including fuel and building materials, this is not the time to remain neutral in our budget. She said this budget looks fine right now, but could change at any time in the future, and the Town needs to be prepared for things that might arise.

Mayor Caldwell added that the Town was looking at new police cars and fire trucks, and we need the financial stability to back up these purchases and provide services that are up to standard.
Alderman Jon Feichter stated that he felt this budget would help ease some burdens on the tax payers, and that we need to be aware of what the future might bring and that the economic situation could be drastically different than what it is now. He expressed concern that there would be risk going forward with the lower rate. He suggested going lower than the 45.7 tax rate, but not down to 41¢.

Manager Hites told the Board that he would look at the items that Alderman Dickson had mentioned and compare how much money could be saved. He said he could report findings at the June 8, 2021 regular Board meeting before the Budget Public Hearing.

Alderman Feichter had questions concerning money allocated for sidewalks and repair. He asked if more money could be used for sidewalks in Allens Creek area. Another item he questioned is the audio/visual equipment in the Board room. Assistant Town Manager Jesse Fowler said he had received two quotes for the equipment. He explained the costs, pros, and cons of each quote. Assistant Manager Fowler told the Board that he had a better understanding of what the Board wanted, he would like to get at least one more quote and then place it on the Board Agenda for approval.

Mayor Caldwell spoke in defense of keeping the Special Appropriations for non-profits. He said that most of the non-profit organizations in Waynesville have struggled because of COVID-19 this year.

Alderman Feichter said he felt pride in allocating monies to the non-profit organizations, and it was a source of pride because Waynesville was the only Town in Haywood County that gives.

Alderman Dickson proposed that grants for electrical, water or sewer be looked at as part of the Special Appropriations. If there are utility grants that can be made, it saves the Town money. After much discussion, Assistant Manager Fowler asked that each Board member complete the worksheet for the appropriations, and he will tally the totals.

The meeting broke for lunch at 11:45 am.

The meeting resumed at 12:30 pm.

Alderman Dickson asked that distributions from the American Rescue Plan be discussed. He said that the Tow would be receiving approximately three million dollars within the next three years. One and a half million must be spent on water, sewer, homelessness, and other things to address the COVID-19 crisis. There was much discussion about line items in the budget that can be covered also.

Mayor Caldwell asked about the findings on the soil testing on the property for the fire station. Manager Hites said that they had received an informal report and it had indicated some asbestos and other chemicals in the soil, but they do not meet the guidelines for being toxic. The site will be certified for a fire station which provides temporary housing.

There was discussion concerning a pavilion at the skate park and dog park. Assistant Manager Fowler said there was only one place the pavilion could be built but that it was in the flood plain. He estimated the cost for the pavilion would be between $36,000.00 - $39,000.00.

Alderman Feichter said that at the last Board meeting Helping Hands had requested ARP funds for housing for unsheltered folks. He said he would like to ask that the Board fund option 1 on the proposal from Helping Hands which is $35,000.00 a year for two years which covers 500 private overnight stays, and the total being $70,000.00 for two years and the money would be disbursed quarterly.

A motion was made by Alderman Jon Feichter, seconded by Alderman Anthony Sutton, to fund money from the ARP to Haywood Helping Hands $35,000.00 for the first year, to be disbursed quarterly, with a report from Helping Hands to the Board. The second year will be a lump sum of 35,000.00 for a total of $70,000.0 for the two years. The motion carried unanimously.

A motion was Made by Alderman Chuck Dickson, seconded by Alderman Anthony Sutton to fund from the ARP money $100.00 gift card if legal or if not, from the General Fund to each employee who has been completely vaccinated for the COVID-19. The motion carried unanimously.

CLOSED SESSION

A motion was made by Alderman Anthony Sutton, seconded by Alderman Jon Feichter, to enter closed session at 12:58 pm. in accordance with NCGS §143-318.11(6) to hear or investigate a complaint, charge, or grievance by or against an individual public officer or employee. The motion carried unanimously.

The Board of Aldermen returned to open session at 2:03 and a motion was made by Alderman Chuck Dickson, seconded by Alderman Anthony Sutton to continue the meeting until Monday June 7, 2021 at 10:00 am. The motion carried unanimously.

A motion was made by Alderman Julia Freeman, seconded by Alderman Anthony Sutton, to reconvene the meeting at 10:00 am on Monday June 7, 2021.

At 10:02 on June 7, 2021, a motion was made by Mayor Gary Caldwell, seconded by Alderman Anthony Sutton to enter closed session. The motion carried unanimously.

The Board returned to open session at 10:54. Alderman Julia Freeman made a motion, seconded by Alderman Anthony Sutton to terminate the Town's contract with Bill Cannon. The motion carried unanimously.

At 10:55, Alderman Jon Feichter made a motion, seconded by Alderman Anthony Sutton to adjourn the meeting The motion carried unanimously.

ATTEST:

_____ _____
Gary Caldwell, Mayor

_____
Robert W. Hites, Town Manager

_____
Eddie Ward, Town Clerk

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Special Event Permits

AGENDA INFORMATION:

Agenda Location: Consent Agenda
Item Number:
Department: Administration
Contact: Jesse Fowler, Assistant Town Manager
Presenter: Jesse Fowler, Assistant Town Manager

BRIEF SUMMARY:

1. ***Pig Pickin' Back to School Bash (August 22, 2021)***: This event will be combining the First United Methodist Church's beginning of summer event with their end of summer event. This event will require a minor road closure of Academy street between the intersections of Haywood and Tate from 2pm to 9pm on August 22, 2021.

2. ***Apple Harvest Festival (October 16, 2021)***: This year will be the 34th year that the Town of Waynesville has hosted the Apple Harvest Festival. The streets will be filled with almost 200 arts and craft booths, food concessions, music, cloggers and more. The event is owned, operated, and organized by the Haywood Chamber of Commerce. Current plans are to limit the number of vendors by 50% and space booths along the sides of the streets with a minimum of six feet distance between them which is the same setup as 2020. There is consideration to allow additional booths according to current guidelines for COVID-19. This event will require the closure of Main Street, Depot Street, and Church Street from 9:00am to 6:30pm on October 16, 2021.

MOTION FOR CONSIDERATION:

FUNDING SOURCE/IMPACT:

ATTACHMENTS:

1. Pig Pickin' Back to School Bash Special Event Permit
2. Apple Harvest festival Special Event Permit and Insurance Documentation

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Application for Special Events Permit

I. General Information

EVENT NAME: Pig Pickin'/Back to School Bash

EVENT DATE(S): August 22, 2021

Note: If event is more than three days in duration, and not in the public right-of-way, you will also need a temporary event permit. Contact the Waynesville Police Dept. at 828-456-5363 for more information.

LOCATION: First United Methodist Church parking lot and outdoor property

IF THIS EVENT IS A PARADE OR ROAD RACE: Please provide a full route description and map

SET-UP TIME (START/END): 2pm-4pm

EVENT HOURS: 4pm-8pm

DISMANTLE HOURS (START/END): 8pm-9pm

ESTIMATED ATTENDANCE: 250 people

BASIS ON WHICH THIS ESTIMATE IS MADE: Previous events like this

COMPREHENSIVE GENERAL LIABILITY INSURANCE REQUIRED: $1,000,000. Please attach proof of insurance (or applicable rider).

II. Applicant and Sponsoring Organization Information

SPONSORING ORGANIZATION NAME: First United Methodist Church, Waynesville

ARE YOU A NON PROFIT CORPORATION? No ____ Yes X If yes, are you 501c(3) X 501c(6) ____ Place of Worship ____

APPLICANT NAME: Becky Brown TITLE: Associate Pastor

ADDRESS: 566 S. Haywood St CITY : Waynesville STATE: NC ZIP 28786

PHONE: 828-456-9475 FAX#: ____ EMAIL: bbrown@fumc-waynesville.com

ON-SITE CONTACT: Michael Blackburn TITLE: Director of Ministries

ADDRESS: 566 S. Haywood St, Waynesville, NC 28786

PHONE #: 828-456-9475 CELL PHONE #: 828-226-3363 EMAIL: mblackburn@fumc-waynesville.com

III. Brief Description of Event

We plan to have food trucks parked in the church parking lot, inflatables for children to play on, a DJ playing music, and gathering for our church and community outdoors. We have done this event for several years, usually in 2 parts (one at the beginning of summer, the other at the end). We are combining them this year in one big event in August.

IV. Street Closure Request (Attach map of the Street Closure)

List any street(s) (or lanes of streets) requiring temporary street closure as a result of this event.

Include street name(s) indicating beginning and endpoints of the closing, day, date and time of closing and reopening:

1. Academy Street (section between Haywood St and Tate St) Beginning at 2pm, ending at 9pm on Sunday, August 22, 2021.

2.

3.

V. Event Details

YES	NO	
☐	☒	Does the event involve the sale or **use of alcoholic beverages?**
		If yes, has the ABC permit been obtained? Yes ☐ No ☐ Please provide a graphic of the area where alcoholic beverages will be purchased or consumed (i.e. beer garden layout)
☐	☒	Does the event involve the **sale of food**? _____
		If "YES", has the health department been notified? _____ Have you applied for a temporary permit? _____
☐	☒	Does the event involve the **sale of non-food items**? If "YES" have you applied for a privilege license? _____
☒	☐	Will there be **musical entertainment** at your event? IF "YES" provide the following information:
		Number of Stages: 0 Number of Band(s): 1 DJ Amplification? Speaker
		Note: If amplification is used, you will be required to perform a pretest for compliance with the noise ordinance.
☒	☐	Do you plan to use an existing **occupied building?** Address FUMC 566 S Haywood St, Waynesville, NC 28786
☐	☒	Do you plan to use an existing **vacant building?** Address _____
☒	☐	Will there be any **tents or canopies** in the proposed event site? Please provide the following information:
		Approx. Number of Tents: 4 Will any tent exceed 400 sq. feet in area? ☒ NO ☐ YES
☐	☒	Does the event involve the use of **pyrotechnics**? Explain _____
☒	☐	Will you provide **portable toilets** for the general public attending your event? IF SO, how many and where will they be located? 2, in the church parking lot
☐	☒	Will you require **electrical hookup** for the event? Generators? _____
☐	☒	Will you require **access to water** for the event? Explain _____
☐	☒	Will **admission fees** be charged to attend this event? If "YES", provide the amount(s) of all tickets. _____
☐	☒	Will **fees be charged to vendors** to participate in this event? If "YES", please provide the amount(s).
☐	☒	Will **signs and/or banners** be displayed as part of the event? If "YES" have you applied for a sign permit? ____
☐	☒	Will **inflatable parade balloons** be used for the event? Provide details if necessary.

VI. Additional Questions

How will **parking** be accommodated for this event? There is ample parking in the church parking lots for the event.

Notes:

1. Parking and buildings involved may be examined for ADA compliance.
2. You may be required to provide a shuttle if the event places undue demands on surrounding parking areas.

How will **trash** be contained and removed during and after the event? We will have our own trash cans located throughout our campus, and we will discard it ourselves.

Volunteers: Will you require Civilian Police Volunteers for your event? no

Apply for this permit at least 60 days prior to your special event. (30 days for a neighborhood street closing)

Return to:
Jesse Fowler, Assistant Town Manager
Town of Waynesville
16 S. Main Street, P.O. Box 100, Waynesville, NC 28786
Telephone: (828) 452-2491
Fax No. : (828) 456-2000
Email Address: jfowler@waynesvillenc.gov

VIII. Special Information for Applicants

* Do not announce, advertise or promote your event until you have an approved and signed permit.
* You will be required to notify property owners affected by the event at the time a special events permit is issued with a copy of any correspondence provided to the Town for the permit file.
* **Only chalk may be used on streets – no permanent paint. No permanent alterations to the street will be permitted**.
* The Town has an ordinance prohibiting the use of tobacco and e-cigarettes in the business districts and all parks of the Town. The Applicant is to communicate this information to all vendors and participants. Permanent signs are in place in these districts and parks.
* The Town has an ordinance allowing animals at festivals. Any incidents should be reported to the Police Department.
* The Applicant shall be responsible for hiring and paying off-duty law enforcement officers, or reimbursing the Town for the costs of providing on-duty law enforcement officers, to appropriately police street closures. For festivals, the Applicant shall be additionally responsible for hiring and paying off-duty law enforcement officers, or reimbursing the Town for the costs of providing city staff, including but not limited to: on-duty law enforcement officers, to provide internal festival security and for hiring and paying necessary emergency medical technicians.
* The Assistant Town Manager, in consultation with the Waynesville Police Department, shall determine the number of officers needed to appropriately monitor street closures and for internal security, and with the Fire Department to determine the number of emergency medical technicians needed, and the time when such services shall commence and end.

FOR INTERNAL USE ONLY:

Application received:

Application approved:

Application denied:

Application for Special Events Permit

I. General Information

EVENT NAME: Apple Harvest Festival

EVENT DATE(S): Saturday, October 16,2021

Note: If event is more than three days in duration, and not in the public right-of-way, you will also need a temporary event permit. Contact the Waynesville Police Dept. at 828-456-5363 for more information.

LOCATION: Downtown Main Street

IF THIS EVENT IS A PARADE OR ROAD RACE: Please provide a full route description and map

SET-UP TIME (START/END): Friday, October 15, 2021

EVENT HOURS: 9:00-5:00

DISMANTLE HOURS (START/END): 5:00-6:30

ESTIMATED ATTENDANCE: 20,000

BASIS ON WHICH THIS ESTIMATE IS MADE: Police Department Estimates

COMPREHENSIVE GENERAL LIABILITY INSURANCE REQUIRED: $1,000,000. Please attach proof of insurance (or applicable rider).

II. Applicant and Sponsoring Organization Information

SPONSORING ORGANIZATION NAME: Haywood Chamber of Commerce

ARE YOU A NON PROFIT CORPORATION? No Yes If yes, are you 501c(3) 501c(6) X Place of Worship

APPLICANT NAME: CeCe Hipps TITLE: President

ADDRESS: 28 Walnut Street CITY : Waynesville STATE: NC ZIP28786

PHONE: 828.768.1430 FAX#: EMAIL: chipps@haywoodchamber.com

ON-SITE CONTACT: CeCe Hipps TITLE: President

ADDRESS: 28 Walnut St; Waynesville, NC 28786

PHONE #: 828.456.3021 CELL PHONE #: 828.768.1430 EMAIL: chipps@haywoodchamber.com

III. Brief Description of Event

The annual Apple Festival is in its 34th year of celebrating everything apples in Downtown Waynesville. The streets are filled with almost 200 arts and craft booths, food concessions, music, cloggers and more. The event is owned, operated and organized by the Haywood Chamber of Commerce. Current plans are to limit the number of vendors by 50% and space booths along the sides of the streets with a minimum of six feet distance between them which is the same setup as 2020. There is consideration to allow additional booths according to current guide lines for COVID-19.

IV. Street Closure Request (Attach map of the Street Closure)

List any street(s) (or lanes of streets) requiring temporary street closure as a result of this event.

Include street name(s) indicating beginning and endpoints of the closing, day, date and time of closing and reopening:

1. Main Street, Church Street, Depot Street, Main Street

V. Event Details

YES	NO	
x☐	☐	Does the event involve the sale or **use of alcoholic beverages?**
		If yes, has the ABC permit been obtained? Yes ☐ No x☐ Please provide a graphic of the area where alcoholic beverages will be purchased or consumed (i.e. beer garden layout)
x☐	☐	Does the event involve the **sale of food**? ___YES (Food Vendors not Chamber)_____
		If "YES", has the health department been notified? __x____ Have you applied for a temporary permit? ___NO_____
x☐	☐	Does the event involve the **sale of non-food items**? If "YES" have you applied for a privilege license? ___NO_____
x☐	☐	Will there be **musical entertainment** at your event? IF "YES" provide the following information:
		Number of Stages: 1 Number of Band(s): 4-5 Amplification? _____
		Note: If amplification is used, you will be required to perform a pretest for compliance with the noise ordinance.
☐	x☐	Do you plan to use an existing **occupied building?** Address _____
☐	x☐	Do you plan to use an existing **vacant building?** Address _____
x☐	☐	Will there be any **tents or canopies** in the proposed event site? Please provide the following information:
		Approx. Number of Tents: 100 Will any tent exceed 400 sq. feet in area? x☐ NO ☐ YES
☐	x☐	Does the event involve the use of **pyrotechnics**? Explain _____
x☐	☐	Will you provide **portable toilets** for the general public attending your event? IF SO, how many and where will they be located? 10
☐	x☐	Will you require **electrical hookup** for the event? Generators? __yes___
☐	x☐	Will you require **access to water** for the event? Explain _____
☐	x☐	Will **admission fees** be charged to attend this event? If "YES", provide the amount(s) of all tickets. _____
x☐	☐	Will **fees be charged to vendors** to participate in this event? If "YES", please provide the amount(s). 10x12 -$200; 12x20 $350;10x20 Food $275;12x20 $500
x☐	☐	Will **signs and/or banners** be displayed as part of the event? If "YES" have you applied for a sign permit? _N___
☐	x☐	Will **inflatable parade balloons** be used for the event? Provide details if necessary.

VI. Additional Questions

How will **parking** be accommodated for this event?

Parking locations are identified on the website, TOW places a sign with directions to parking garage

Notes:

1. Parking and buildings involved may be examined for ADA compliance.
2. You may be required to provide a shuttle if the event places undue demands on surrounding parking areas.

How will **trash** be contained and removed during and after the event?

2 Dumpsters are placed by TOW. ROTC volunteers collect trash on streets and drop off at dumpsters. The Chamber makes a donation to ROTC

Volunteers: Will you require Civilian Police Volunteers for your event? YES

Apply for this permit at least 60 days prior to your special event. (30 days for a neighborhood street closing)

Return to:
Jesse Fowler, Assistant Town Manager
Town of Waynesville
16 S. Main Street, P.O. Box 100, Waynesville, NC 28786
Telephone: (828) 452-2491
Fax No. : (828) 456-2000
Email Address: jfowler@waynesvillenc.gov

VIII. Special Information for Applicants

* Do not announce, advertise or promote your event until you have an approved and signed permit.
* You will be required to notify property owners affected by the event at the time a special events permit is issued with a copy of any correspondence provided to the Town for the permit file.
* **Only chalk may be used on streets – no permanent paint. No permanent alterations to the street will be permitted**.
* The Town has an ordinance prohibiting the use of tobacco and e-cigarettes in the business districts and all parks of the Town. The Applicant is to communicate this information to all vendors and participants. Permanent signs are in place in these districts and parks.
* The Town has an ordinance allowing animals at festivals. Any incidents should be reported to the Police Department.
* The Applicant shall be responsible for hiring and paying off-duty law enforcement officers, or reimbursing the Town for the costs of providing on-duty law enforcement officers, to appropriately police street closures. For festivals, the Applicant shall be additionally responsible for hiring and paying off-duty law enforcement officers, or reimbursing the Town for the costs of providing city staff, including but not limited to: on-duty law enforcement officers, to provide internal festival security and for hiring and paying necessary emergency medical technicians.
* The Assistant Town Manager, in consultation with the Waynesville Police Department, shall determine the number of officers needed to appropriately monitor street closures and for internal security, and with the Fire Department to determine the number of emergency medical technicians needed, and the time when such services shall commence and end.

FOR INTERNAL USE ONLY:

Application received:

Application approved:

Application denied:

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Presentation of 2 Hero Awards

AGENDA INFORMATION:

Agenda Location:	Presentations
Item Number:	**D2**
Department:	Police, Fire, Haywood Co. EMS
Contact:	Police Chief David Adams & Fire Chief Joey Webb
Presenter:	Police Chief David Adams, Fire Chief Joey Webb, and Haywood County EMS Director Travis Donaldson

BRIEF SUMMARY:

Haylen Bradley and Conner Bridges, both 9 years of age, on separate occasions responded quickly in life or death situations in order to save the lives of others. Haylen Bradley observed her neighbor pinned underneath a vehicle and was able to alert others who were able to remove the vehicle. Conner Bridges found his grandfather unresponsive during a diabetic emergency and was able to contact 911 in order to save his life. Waynesville Police Chief David Adams, Waynesville Fire Chief Joey Webb, and Haywood County EMS Director Travis Donaldson will be presenting Hayden and conner with a plaque to honor their actions.

MOTION FOR CONSIDERATION:

FUNDING SOURCE/IMPACT:

ATTACHMENTS:

MANAGER'S COMMENTS AND RECOMMENDATIONS:

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Public Hearing to consider public input on the 2021/2022 fiscal year budget

AGENDA INFORMATION:

Agenda Location: **Public Hearing**
Item Number: **E3**
Department: Finance
Contact: Autumn Lyvers, Finance Director
Presenter: Autumn Lyvers, Finance Director

BRIEF SUMMARY:

This is a public hearing to consider public input on the 2021/2022 fiscal year budget. The full proposed budget document can be vied online at the Town of Waynesville's webpage at waynesvillenc.gov.

MOTION FOR CONSIDERATION:

Motion to approve the proposed 2021/2022 fiscal year budget as presented or amended.

FUNDING SOURCE/IMPACT:

ATTACHMENTS:

MANAGER'S COMMENTS AND RECOMMENDATIONS:

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT:
This is a Public Hearing to consider text amendments to the Land Development Standards for compliance with NCGS 160D.

AGENDA INFORMATION:

Agenda Location:	New Business
Item Number:	**E4**
Department:	Development Services
Contact:	Elizabeth Teague, Olga Grooman
Presenter:	Olga Grooman, Attorney Anna Stearns

BRIEF SUMMARY:
Chapter 160D of the North Carolina General Statutes (NCGS) clarify, consolidate, and reorganize city and county-enabling statutes related to development. These statutory guidelines are currently found in NCGS 160A which will be replaced by this new legislation. Changes to Waynesville's LDS include converting all references from "160A" to "160D," required conflict of interest language, changes in timeframes for permit validity and vested rights, and updating several definitions for consistency throughout the state. Several procedural updates are also proposed in order to align the Town's Land Development Standards with best practices suggested by the UNC School of Government's analysis of 160D. These amendments need to be incorporated into local development and zoning regulations by July 1, 2021, before the Chapter 160D statutes become effective on August 1, 2021.

MOTIONS FOR CONSIDERATION:

1. Motion to find that the updates to the Land Development Standards are consistent with the 2035 Comprehensive Land Use Plan.
2. Motion to find that the 160D updates are in the public interest because they bring the Land Development Standards in compliance with the new law.
3. Motion to adopt the attached text amendments to Land Development Standards as presented (or as amended).

FUNDING SOURCE/IMPACT:

N/A

ATTACHMENTS:

1. Staff Report
2. Draft Ordinance
3. Report from the Planning Board
4. Consistency Worksheet

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Board of Aldermen Staff Report

Subject:	NCGS 160D Land Development Standards (LDS) text amendments
Ordinance Section:	Multiple Sections of Land Development Standards
Applicant:	Staff initiated Text Amendment; Development Services Department
Meeting Date:	June 22, 2021

Background:

Chapter 160D was adopted by the N.C. General Assembly in 2019 to consolidate city and county statutes and create a unified set of land development regulation statutes among all cities and counties in North Carolina. Local municipalities need to be in compliance with 160D by July 1st, 2021. The law will be enacted statewide on August 1st, 2021.

In developing the proposed text amendments, the Development Services Department followed State Statutes for 160 D and the guidelines and recommendations of the UNC School of Government:

- https://www.ncleg.gov/EnactedLegislation/Statutes/HTML/ByChapter/Chapter_160d.html
- https://www.sog.unc.edu/resources/microsites/planning-and-development-regulation/ch-160d-2019
- Lovelady, A. and Owens, D. (2020) Chapter 160D: A New Land Use Law for North Carolina, University of North Carolina, Chapel Hill.

Staff also participated in training and collaborative discussion through the North Carolina Planners' list serve and the NC Chapter of the American Planning Association. Legal guidance has been provided by Ron Sneed and Anna Stearns. Staff presentations on 160D were made on September 21, 2020, April 19, 2021, and the Town adopted *Waynesville 2035 Planning with Purpose, Comprehensive Land Use Plan,* on September 8, 2020 after several months of Planning Board review and public hearings. The Planning Board held a public hearing on May 26, 2021 and recommends adoption of the attached ordinance.

Staff Recommended Text Changes:

Text amendments include definitions, substitution of 160A references with relevant provisions from 160D, addition of the conflict of interest standards, updated performance guarantees section, revised permit terms and process types for different development projects in chapter 15, updated vested rights section, revised chapter 16 on violations and civil penalties, and replacement of protest petitions section with public comments to match the language and requirements of 160D.

Staff submits that the attached draft ordinance be recommended to the Board of Aldermen for adoption, with proposed changes to the current Land Development Standards provided in red.

Consistency with the 2035 Comprehensive Land Use Plan

160D-related changes are reasonable and in the public interest because they will keep the Town of Waynesville in compliance with the current General Statutes for land use planning and zoning, and clarify definitions and procedures which should aid in land use decisions. In so doing, these text amendments will assist the Town in carrying out the community vision statement of the 2035 Comprehensive Plan:

> *Waynesville will enable the growth of a vibrant, healthy, and successful community – true to our history, small town culture and heritage; responsive to the changing aspirations and needs of all our citizens; purposefully built on the principles of smart growth; mindful of the gift of our rivers and creeks, farmland and mountain vistas; and attentive to the opportunities presented in regional preservation, arts and education, economic development, and land use initiatives.*

Staff also submits that the proposed text amendments to the LDS are consistent with the first goal of the 2035 Comprehensive Plan:

Goal 1: Continue to promote smart growth principles in land use planning and zoning.

- Create walkable and attractive neighborhoods and commercial centers.
- Encourage in-fill, mixed use, and context-sensitive development.
- Promote conservation design to preserve important natural resources. (And to)
- Reinforce the unique character of Waynesville.

Attachments

1. Draft Ordinance
2. Report from the Planning Board
3. Consistency Statement Worksheet.

Recommended Motions

1. Motion to find that updates to the Land Development Standards are consistent with the 2035 Comprehensive Land Use Plan.

2. Motion to find that the 160D updates are in the public interest because they are in compliance with the current law.

3. Motion to adopt the attached text amendments to Land Development Standards as presented.

ORDINANCE NO. O-11-21

AN ORDINANCE AMENDING THE TEXT OF THE TOWN OF WAYNESVILLE LAND DEVELOPMENT STANDARDS

WHEREAS, the Town of Waynesville has the authority, pursuant to Part 3 of Article 19 of Chapter 160A, now Section III of Chapter 1 of 160D, of the North Carolina General Statutes, to adopt land development regulations, clarify such regulations, and may amend said regulations from time to time in the interest of the public health, safety and welfare; and

WHEREAS, the Town of Waynesville must comply with North Carolina General Statutes to maintain Land Development regulations comply with the most up to date version of State authorization statutes known as 160D by July 1, 2021.

WHEREAS, the Town of Waynesville Planning Board has reviewed the proposed text amendments to the Land Development Standards (LDS) and recommends that it is consistent with the 2035 Comprehensive Plan and that it is reasonable and in the public interest because:

- Compliance with 160D will continue to "promote smart growth in land use planning and zoning;" (Goal #1);
- It will keep the Town of Waynesville in compliance with General Statutes for land use planning and zoning; and

WHEREAS, the Board of Aldermen find this Ordinance is consistent with the Town's 2035 Comprehensive Plan and that it is reasonable and in the public interest to "make decisions about resources and land use in accordance with North Carolina General Statutes;" and

WHEREAS, after notice duly given, a public hearing was held on May 26, 2021 at a special called meeting of the Waynesville Planning Board, and on June 22, 2021 at the regularly scheduled meeting of the Board of Aldermen;

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE TOWN OF WAYNESVILLE, MEETING IN REGULAR SESSION ON _____AND WITH A MAJORITY OF THE BOARD MEMBERS VOTING IN THE AFFIRMATIVE, THE FOLLOWING:

That the Land Development Standards be amended as follows in compliance with statutory changes in N.C.G.S. 160D.

1. Amend Section 1.2 Authority as follows:

   Specifically, principal authorization comes in the North Carolina General Statutes in Chapter ~~160A (Planning and Regulation of Development)~~ 160D (Local Planning and Development Regulation).

2. Amend Section 1.5 Consistency with All Adopted Plans as follows:

   In accordance with G.S. ~~160A-382-383~~ 160D, all development plans shall be in conformance with all adopted plans (…).

3. Replace Section 2.1.1 and 2.1.2 Official Land Development Map as follows:

   ~~**2.1.1 Official Land Development Map**~~

   ~~**A.** The Official Zoning Map of the Town of Waynesville shall be known as the Official Land Development Map.~~

   ~~**B.** Each land development and overlay district shall be shown on the Official Land Development Map for the Town of Waynesville.~~

   ~~**C.** The Official Land Development Map shall be maintained in the Waynesville Planning Department and a copy shall be kept on file with the Town Clerk. The Administrator shall separately maintain the digital files that comprise the map and record all map amendments in a separate metadata file.~~

   ~~**D.** The Official Land Development Map, if printed or produced for dissemination shall show the effective date of this ordinance and bearing the words: "Official Land Development Map, Town of Waynesville, North Carolina."~~

   ~~**2.1.2 Land Development Map as Part of Land Development Standards**~~

   ~~The Official Land Development Map for the Town of Waynesville, and all district designations, boundaries, figures, letters and symbols shown on such maps are hereby declared to be a part of this chapter.~~

   2.1.1 Official Land Development Map.

   In accordance with 160D-105, the adopted zoning district boundaries and zoning overlays shall be shown on a map of the Town of Waynesville which shall be known as the Official Land Development Map, and such map is hereby incorporated into these Land Development Standards for the Town of Waynesville.

   Zoning district maps and a copy of the currently effective version of any incorporated map shall be maintained for public inspection in the Waynesville Development Services Department.

   The Official Land Development Map shall be maintained in the Waynesville Development Services Department and a copy shall be kept on file with the Town Clerk. Copies of the Official Land Development Map shall be provided upon request and, when certified by the town clerk in accordance with G.S. 160A-79 or G.S. 153A-50, shall be admissible into evidence and shall have the same force and effect as would the original map.

   Zoning district boundaries are automatically amended to remain consistent with the incorporated map upon Board of Aldermen approval of zoning map amendments.

2.1.2 Adoption of Other Maps by Reference.

North Carolina flood insurance rate maps, watershed boundary maps, and state surface water maps officially adopted and promulgated by State and federal agencies are hereby adopted and incorporated into these Land Development Standards in their most recently adopted version by reference.

The Town of Waynesville Municipal Services District map, Powell Bill Map, Comprehensive Pedestrian Plan, Parks and Recreation Master Plan, and local and federally designated historic districts and landmarks are hereby adopted and incorporated into these Land Development Standards in their most recently adopted version by reference.

4. Amend Section 2.6.1 Historic Overlay District as follows:

C. **Development Standards.**

1. **Historic Overlay District- General Requirements**

b. When the provisions of this section and the ~~guidelines~~ standards and regulations established for each individual HOD, impose higher standards than are required for that land development district, the provisions of this section and all the applicable ~~guidelines~~ standards and regulations shall govern.

5. Amend Section 2.7 Conditional Districts as follows:

Conditional districts are districts with conditions voluntarily added by the applicant and approved in a legislative procedure by the Board of Aldermen in accordance with G.S. ~~160A-382~~ 160D.

6. Amend Section 5.2.2 Applicability and Administration as follows:

Adopted Plans or Historic ~~Guidelines~~ Standards to Take Precedence.

Where specific architectural elements are required as part of an adopted plan or associated with local historic ~~guidelines~~ standards, these shall take precedence over the building design requirements of this chapter.

7. Amend Section 6.12.2 Types of Guarantees as follows and separate other information into new Section as 6.12.3:

6.12.1 General.

~~**C. Terms:** The financial guarantee will be renewable, in one year terms, until 50 percent of building permits have been issued within the applicable phase. When 50 percent of building permits have been issued in a particular phase, the developer may petition the town to take over ownership and maintenance of the streets and infrastructure within the phase.~~

C. Duration: The duration of the performance guarantee shall initially be one year, unless the developer determines that the scope of work for the required improvements necessitates a longer duration. In the case of a bonded obligation, the completion date shall be set one year from the

date the bond is issued, unless the developer determines that the scope of work for the required improvements necessitates a longer duration (160D-804.1(1a)).

D. Extension. If the improvements are not completed before the guarantee is likely to expire, the Administrator may extend the performance guarantee, or the developer may provide a new performance guarantee, for an additional period. An extension under this section shall only be for a duration necessary to complete the required improvements. If the extension is granted, the amount of the renewed performance guarantee shall not exceed 125% of the improvements yet to be completed. The new amount must be reduced for improvements that have already been completed (160D-804.1(1b)).

6.12.2 Types of Guarantees.

A. Surety Performance Bond:

~~3. The duration of the bond shall be until such time as the improvements are accepted by the Board of Aldermen, but shall not exceed two (2) years from date of request.~~
~~4. Extensions past two (2) years may be granted by the Administrator at the request of the developer subject to new cost estimates and additional guarantees possibly being required.~~

B. Letter of Credit:

1. The developer may obtain a letter of credit issued by any financial institution licensed to do business in North Carolina.

2. A satisfactory, irrevocable letter of credit as approved by the town attorney and deposited with the town clerk shall be submitted, containing the following information:

   a. Indication that the Town is the sole beneficiary,
   b. The amount (of the letter of credit) as approved,
   c. Account number and/or credit number that drafts may be drawn on,
   d. List of improvements that shall be built that the letter is guaranteeing,
   e. Terms in which the town may make drafts on the account,
   f. Expiration date of the letter.

~~B.~~ C. Cash or Equivalent Security:

(…)

6.12.3 Relevant Provisions:

~~C.~~A. Default by Developer:

(...)

~~D.~~B. Release of Guarantee:
(...)

~~E~~.C. **Warranty Against Defects:**

(...)

D. **Coverage:**

The performance guarantee shall be used only for the completion of the required improvements. It shall not be used for repairs or maintenance after initial completion (160D-804.1(4)). If the project has common areas that require maintenance, the developer or the entity to which the property has been officially transferred is responsible for maintaining these common areas.

E. **Exclusion:**

Performance guarantees associated with erosion control and stormwater control are not subject to the provisions of this section.

5. Amend Section 12.3.1 Statutory Authorizations, Findings of Fact, Purpose and Objectives as follows:

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; ~~Parts 3, 5, and 8 of Article 19 of Chapter 160A~~; Articles 7, 9, 11, and 13 of Chapter 160D and the Article 8 of Chapter 160A of the North Carolina General Statutes, delegated to local governmental units the responsibility to adopt regulations (…).

6. Amend Section 14.3.2 Planning Board Membership and Quorum as follows:

(…) one 1 or more members shall be appointed by the Haywood County Commissioners as set forth in ~~G.S. 160A-362~~ G.S. 160D-307 to provide for proportional representation of residents within the Extraterritorial Jurisdiction.

7. Amend Section 14.4.2 Board of Adjustment Membership and Quorum as follows:

The Board shall not pass upon any decision relating to an appeal from a decision, order, requirement, or determination of town officials or an application for a variance or ~~conditional use permit~~ special use permit when there are less than four-fifths (4/5) of the board members with jurisdictional authority present.

8. Amend Section 14.5.1 Historic Preservation Powers and Duties as follows:

The Historic Preservation Commission of Waynesville shall have the following powers and duties to be carried out in accordance with the terms of this ordinance of ~~G.S. Chapter 160A, Article 19, Part 3C~~ G.S. Chapter 160D, Article 9, Part 4 (…).

9. Insert new section to 14.6 Meetings and General Procedures:

14.6.7 Conflict of Interest Policy.

A. Governing Board. - A governing board member shall not vote on any legislative decision regarding a development regulation adopted pursuant to this Chapter where the outcome of the matter being considered is reasonably likely to have a direct, substantial, and readily identifiable financial impact on the member. A governing board member shall not vote on any zoning amendment if the landowner of the property subject to a rezoning petition or the applicant for a text amendment is a person with whom the member has a close familial, business, or other associational relationship.

B. Appointed Boards. - Members of appointed boards shall not vote on any advisory or legislative decision regarding a development regulation adopted pursuant to this Chapter where the outcome of the matter being considered is reasonably likely to have a direct, substantial, and readily identifiable financial impact on the member. An appointed board member shall not vote on any zoning amendment if the landowner of the property subject to a rezoning petition or the applicant for a text amendment is a person with whom the member has a close familial, business, or other associational relationship.

C. Administrative Staff. - No staff member shall make a final decision on an administrative decision required by this Chapter if the outcome of that decision would have a direct, substantial, and readily identifiable financial impact on the staff member or if the applicant or other person subject to that decision is a person with whom the staff member has a close familial, business, or other associational relationship. If a staff member has a conflict of interest under this section, the decision shall be assigned to the supervisor of the staff person or such other staff person as may be designated by the development regulation or other ordinance.

D. No staff member shall be financially interested or employed by a business that is financially interested in a development subject to regulation under this Chapter unless the staff member is the owner of the land or building involved. No staff member or other individual or an employee of a company contracting with a local government to provide staff support shall engage in any work that is inconsistent with his or her duties or with the interest of the local government, as determined by the local government.

E. Quasi-Judicial Decisions. - A member of any board exercising quasi-judicial functions pursuant to this Chapter shall not participate in or vote on any quasi-judicial matter in a manner that would violate affected persons' constitutional rights to an impartial decision maker. Impermissible violations of due process include, but are not limited to, a member having a fixed opinion prior to hearing the matter that is not susceptible to change, undisclosed ex parte communications, a close familial, business, or other associational relationship with an affected person, or a financial interest in the outcome of the matter.

F. Resolution of Objection. - If an objection is raised to a board member's participation at or prior to the hearing or vote on a particular matter and that member does not recuse himself or herself, the remaining members of the board shall by majority vote rule on the objection.

G. Familial Relationship. - For purposes of this section, a "close familial relationship" means a spouse, parent, child, brother, sister, grandparent, or grandchild. The term includes the step, half, and in-law relationships. (2019-111, s. 2.4.)

10. Amend Section 15.2.3 as follows:

15.2.3 Permit/Process Type

Permit/ Process Type	Section	Permit/Process Type	Reviewing Agency	Public Notification (15.3)	Approving Agency	Appeal Process	Permit Period	Permit Extension
Certificate of LDS Compliance	15.6.1	Administrative	Admin.	None	Admin.	BOA	~~6 months~~ 12 months	~~6 months~~ Re-submit
Temporary Use Permit	15.6.2	Administrative	Admin.	None	Admin.	BOA	See ~~4.7~~ 4.6	n/a
Certificate of Occupancy	15.6.3	Administrative	Admin.	None	Admin.	BOA	n/a	n/a
Modification of Dimensional Standards	15.6.4	Administrative	Admin.	None	Admin.	BOA	n/a	n/a
Grading Permit	15.7.1	Administrative	Admin.	None	Admin.	BOA	~~6 months~~ 12 months	Re-submit
Floodplain Development Permit	15.7.2	Administrative	Admin.	None	Admin.	BOA	~~1 year~~ 12 months	Re-submit
Stormwater Permit	15.7.3	Administrative	Admin.	None	Admin.	BOA	~~1 year~~ 12 months	Re-submit
Site Plan/Design Review (Minor)	15.8.1	Administrative	Admin.	None	Admin.	BOA	~~1 year~~ 2 years	~~1 year~~ Up to 3 years max.*
Site Plan/Design Review (Major)	15.8.2	~~Quasi-judicial~~ Administrative	Admin.	1,2,4	Planning Board	Superior Court	~~1 year~~ 2 years	~~1 year~~ Up to 3 years max.*
Subdivision (Minor)	15.9.1	Administrative	Admin.	None	Admin.	~~BOA~~ Superior Court**	30 days to file plat	Re-submit
~~**Subdivision (Major)**~~	~~15.9.2~~	~~Quasi-judicial~~	~~Admin.~~	~~1,2,4~~	~~Planning Board~~	~~BOA~~	~~1 year to Final Plat~~	~~6 months~~
Subdivision (Major)	**See 15.9.2, 15.9.3, and 15.9.4**							
Subdivision (Major)-Preliminary Plat	15.9.3	Administrative	Admin.	~~None~~ 1,2,4	Planning Board ~~Admin.~~	~~BOA~~ Superior Court**	~~1 year to final plat~~ 2 years to final plat	~~6 months~~ Up to 3 years max.*
Subdivision (Major)-Final Plat	15.9.4	Administrative	Admin.	None	Admin.	~~BOA~~ Superior Court**	30 days to file plat	Re-submit
Special Use Permit	15.10	Quasi-Judicial	Planning Board	1,2,5	Planning Board	Superior Court	~~1 year~~ 2 years	~~1 year~~ Up to 3 years max.*
Designation of Historic Landmarks/Districts	15.11.1	Legislative	HPC	1,2,3	Board of Aldermen	Superior Court	n/a	n/a
Certificate of Appropriateness (Minor)	15.11.2	Administrative	Admin.	None	Admin.	HPC	~~6 months~~ 12 months	Re-submit
Certificate of Appropriateness (Major)	15.11.3	Quasi-Judicial	Admin.	1,2,4	HPC	BOA	~~6 months~~ 12 months	Re-submit
Appeal of Administrative Decision	15.12	Quasi-Judicial	BOA	1,4	BOA	Superior Court	30 days to Appeal	n/a

Variance	15.13	Quasi-Judicial	BOA	1,4	BOA	Superior Court	30 days to Appeal	n/a
Text Amendment	15.14	Legislative	Planning Board	1,2,3,4	Board of Aldermen	Superior Court	n/a	n/a
Map Amendment (Rezoning)	15.14	Legislative	Planning Board	1,2,3,4	Board of Aldermen	Superior Court	n/a	n/a
Conditional District	15.15	Legislative	Planning Board	1,2,5	Board of Aldermen	Superior Court	~~May be rescinded after 2 years~~ 2 years	~~n/a~~ Up to 3 years max.*
~~**Vested Right**~~	~~15.16~~	~~Legislative~~	~~Planning Board~~	~~1,2,4~~	~~Board of Aldermen~~	~~None~~	~~2-5 years~~	~~Up to 5 years total~~

* See Section 15.16.3
** *160D-1403(b)*

11. Amend Section 15.5 General Requirements for Quasi-Judicial Hearings and Decisions as follows:

15.5- General Requirements for ~~Quasi-Judicial~~ Evidentiary Hearings and Quasi-Judicial Decisions.

A quasi-judicial decision is a ~~process that involves~~ decision involving the finding of facts regarding a specific application of an ordinance and that requires the exercise of discretion when applying the standards of the ordinance. Quasi-judicial decisions include, but are not limited to, decisions involving variances, special use permits, certificates of appropriateness, and appeals of administrative determinations. In accordance with G.S. ~~160A-393~~ 160D-1-2, -1402, decisions on the approval of site plans and subdivisions ~~and~~ are quasi-judicial in nature if the ordinance authorizes (…).

12. Amend Section 15.5.1 Standards of Conduct as follows:

Standards for Conduct of ~~Quasi-judicial~~ Evidentiary Hearings.

An evidentiary hearing is a hearing to gather competent, material, and substantial evidence in order to make findings for a quasi-judicial decision required by an ordinance.

C. (…) All decisions shall be based on competent, material, and substantial evidence entered in as part of the record.

13. Amend Section 15.6.1 Certificates of Land Development Standards (LDS) Compliance as follows:

G. **Permit Validity:** Upon the approval of the Certificate of Land Development Standards Compliance, the applicant shall have ~~six (6) months~~ one (1) year to obtain a building permit or otherwise begin the permitted use.

H. **Permit Extension:** ~~The Administrator may grant a single extension of this time period of up to six (6) months upon submittal by the applicant of sufficient justification for the extension.~~ Renewal of an expired certificate shall require the same application procedure as the initial permit. No further development activity shall be performed until the new certificate is issued.

14. Amend Section 15.7.1 Grading Permit (Sedimentation and Erosion Control) as follows:

H. **Permit Validity:** When work under a grading permit is not ~~completed~~ substantially commenced within ~~six (6) months~~ one (1) year following the date of issuance of the grading permit, the grading permit shall be deemed expired.

15. Amend Section 15.7.3 Stormwater Permits as follows:

G. **Permit Validity:** When a stormwater permit is issued in association with a project requiring a building permit, the stormwater permit shall expire upon the expiration or revocation of the building permit. When a stormwater permit is issued for a project that does not require a building permit, the stormwater permit shall expire if work is not initiated within twelve (12) months of the date of issuance of the permit. ~~or if work stops for a twelve (12) month period.~~

16. Amend Section 15.8.1 Site Plan/Design Review (Minor) as follows:

H. **Permit Validity:** Upon the approval of the Minor Site Plan, the applicant shall have ~~one (1) year~~ two (2) years to obtain a building permit.

I. **Permit Extension:** ~~The Administrator may grant a single extension of this time period of up to one (1) year upon submittal by the applicant of sufficient justification for the extension.~~ Pursuant to 160D-108.1(e)(2), the Administrator may provide an extension for a period exceeding two (2) years but not exceeding five (5) years where warranted in light of all relevant circumstances, including, but not limited to: the size and phasing of development, the level of investment, the need for the development, economic cycles, and market conditions or other considerations. These determinations are in the sound discretion of the Administrator and shall be made following the same application procedure as the initial approval. No further development activity shall be performed until the extension approval is issued.

17. Amend Section 15.8.2 Site Plan/Design Review (Major) as follows:

B**. Process Types:** ~~Quasi-judicial (see also 15.4)~~ Administrative

36. **Decisions/Findings of Fact:** Following the public hearing the ~~commission~~ Planning Board may approve, deny or approve with conditions the application for a Major Site Plan. No Major Site Plan shall be ~~granted~~ approved unless the ~~commission~~ Planning Board finds each of ~~it complies with~~ the following ~~findings of~~ facts to be true:

    1. The plan is consistent with the adopted plans and policies of the Town;
    2. The plan complies with all applicable requirements of this ordinance; and
    3. ~~There exists adequate infrastructure (transportation and utilities) to support the plan as proposed;~~
    The plan has infrastructure as required by the ordinance to support the plan as proposed;
    ~~4. The proposed plan conforms to the character of the neighborhood, considering the location, type and height of buildings or structures and the type and extent of landscaping on the site; and~~

~~5. The application will not substantially injure the value of adjoining or abutting property, and will not be detrimental to the use or development of adjacent properties or other neighborhood uses.~~

J. **Review Period by ~~Commission~~ Planning Board:** Applications for Major Site Plans shall be acted upon within ninety (90) days after filing, otherwise the application shall be deemed approved and a permit shall be issued. An extension of time may be granted by mutual consent of the ~~commission~~ Planning Board and the applicant.

L. **Permit Validity**: Upon the approval of the Major Site Plan, the applicant shall have ~~one year~~ two (2) years to obtain a building permit.

M. **Permit Extension:** ~~Upon the approval of the Major Site Plan, the applicant shall have one (1) year to obtain a building permit. Failure to secure building permits for the permitted work within this time shall render the compliance void. Any change to the approved plans that has not been authorized by the Administrator shall invalidate the certificate of land development standards compliance and any subsequent building permits.~~ Pursuant to 160D-108.1(e)(2), the Administrator may provide an extension for a period exceeding two (2) years but not exceeding five (5) years where warranted in light of all relevant circumstances, including, but not limited to, the size and phasing of development, the level of investment, the need for the development, economic cycles, and market conditions or other considerations. These determinations are in the sound discretion of the Administrator and shall be made following the same application procedure as the initial approval. No further development activity shall be performed until the new approval is issued.

18. Amend Section 15.9.1 Minor Subdivisions as follows:

F. Appeals. Notwithstanding the provisions of section 15.12.2 below, when an applicant disagrees with ~~Appeals of~~ the decision~~s~~ of the Administrator, the applicant may, within thirty (30) days after the receipt of the decision in writing, request that the application be forwarded to the Planning Board for determination at the next regularly scheduled meeting of the Board. The request must be made in writing and delivered to the Town Clerk. ~~shall be heard by the Board of Adjustment in accordance with section 15.12~~ Appeals of the decision of the Planning Board shall be made to the Superior Court of Haywood County. Such an appeal must be made in writing within thirty (30) days of the receipt of the decision by the property owner.

. . .

I. The minor subdivision process is not intended to permit the avoidance of improvements, infrastructure or other standards imposed for major subdivisions. Therefore, when an application for minor subdivision approval is made by an applicant who has previously obtained minor subdivision approval for an adjacent parcel of land in the previous two years, the application shall be treated as an application for, and conform to the requirements of, a major subdivision set forth below.

19. Amend Section 15.9.2 Major Subdivisions as follows:

The ~~minor~~ major subdivision review process is required for those divisions of land into eight (8) or more lots or which require dedication of public utilities and/or public streets.

A. **Process Types:** ~~Quasi-judicial (See also 15.4).~~ Administrative

B. **Pre-Application Procedure:** It is required that every applicant for a Major Subdivision meet with the Administrator in a conference prior to the submittal of an application. The purpose of this conference is to provide clarification and assistance in the preparation and submission of plats for approval. It is recommended that the applicant provide a sketch plan (15.4.2) and Environmental survey (15.4.1) to the Administrator prior to or at the pre-application conference. The provision of a sketch plan will allow the Administrator an opportunity to review the proposal before the applicant expends funds on the preparation of a detailed Subdivision Plan.

C. **Required Application Information:** Environmental Survey (15.4.1) and Preliminary Plat.

~~D. **Determination of Completeness:** The Administrator shall review the application to ensure that it is complete, prepare a report and recommendation on the application, and schedule the matter for a public hearing before the Community Appearance Commission.~~

~~E. **Public Notification:** Level 1, 2 and 4.~~

~~F. **Neighborhood Meeting (15.3.7):** Optional.~~

~~G. **Public Hearing:** The Planning Board shall hold a hearing on the proposal. The applicant and other property owners likely to be materially affected by the application shall be given an opportunity to be heard.~~

~~H. **Decisions/Findings of Fact:** Following the public hearing the commission may approve, deny or approve with conditions the application for a Major Subdivision. No Major Subdivision shall be granted unless it complies with the following findings of fact:~~

~~1. The plan is consistent with the adopted plans and policies of the Town;~~

~~2. The plan complies with all applicable requirements of this ordinance;~~

~~3. There exists adequate infrastructure (transportation and utilities) to support the plan as proposed; and~~

~~4. The application will not substantially injure the value of adjoining or abutting property, and will not be detrimental to the use or development of adjacent properties or other neighborhood uses.~~

~~I. **Review Period by Planning Board:** The Planning Board shall take action (approve or deny approval) within thirty-two (32) days of the public hearing on the matter. Should the Planning Board fail to act on the preliminary plat within the prescribed period, the applicant may seek preliminary plat approval by the Board of Aldermen at the next regularly scheduled meeting of the aldermen.~~

~~J. **Decisions:** If the Planning Board approves the Major Subdivision, the applicant will be directed to proceed to the preparation of a Preliminary Plat (15.4.4). If the Planning Board disapproves or approves conditionally the plat, the reasons for such action shall be stated in writing and entered in the records of the Planning Board. The applicant may make changes and submit a revised plat which revision shall be submitted, review and acted on in accordance with the procedures set forth in this section.~~

~~K. **Appeals:** An appeal from the decision of the Planning Board regarding a Major Subdivision request may be made by an aggrieved party and shall be made to the Superior Court of Haywood County in the nature of certiorari. Any such petition to the Superior County shall be filed with the court no later than thirty (30) days after the applicant receives the written copy of the decision of the Planning Board.~~

~~L. **Permit Validity:** Approval of a Major Subdivision Plan shall be valid for one (1) year from the date of approval. A Preliminary Plat shall be presented for approval prior to the end of this one (1) year period.~~

~~M. **Permit Extension:** The Administrator may grant a single extension of this time period of up to six (6) months upon submittal by the applicant of sufficient justification for the extension.~~

C. **Preliminary Plat Approval:** The Planning Board shall review and either approve or deny the major subdivision applicant's preliminary plat in accordance with the procedure set forth in section 15.9.3 below. Engineering, including a compliant Stormwater Plan (12.5) and Construction Documents (15.4.4) shall be submitted after Planning Board review.

D. **Final Plat:** Once all infrastructure improvements are installed or financially guaranteed as required by Section 6.13 below, the Final Plat shall be presented for approval in accordance with Section 15.9.4 below.

20. Amend Section 15.9.3 Preliminary Plat as follows:

15.9.3. Preliminary Plats for Major Subdivision:

A. **Process Types:** Administrative.

B. **Permit Required Before Any Land-Disturbing Activity:** No ~~such~~ land-disturbing activity shall take place until a Preliminary Plat has been approved.

~~C. **Pre-Application Procedure:** Prior to applying for a Preliminary Plat or and submitting plans, the applicant is encouraged to meet with the Administrator. The purpose of this meeting is to discuss any specific engineering detail necessary for consideration prior to the preparation of the Preliminary Plat.~~

~~D.~~C. **Required Application Information:** Environmental Survey (15.4.1) and Preliminary Plat (15.4.4) prepared by a registered land surveyor, licensed landscape architect or licensed engineer.

D. **Determination of Completeness:** The Administrator shall review the application to ensure that it is complete, prepare a report and recommendation on the application, and schedule the matter for a public hearing before the Planning Board.

~~E. **Determination of Conformity:** Following submittal of the application and accompanying data, the information shall be reviewed by the Administrator for compliance with the requirements of this ordinance and with the Manual of Specifications. Provided the application is complete, applications shall be reviewed and acted upon by the staff and notice given the applicant within thirty (30) days of receipt of the application.~~

E. **Public Notification:** Level 1, 2 and 4.

F. **Neighborhood Meeting (15.3.7):** Optional.

G. **Public Hearing:** The Planning Board shall hold a hearing on the proposal. The applicant and other property owners likely to be materially affected by the application shall be given an opportunity to be heard.

H. **Decisions/Findings of Fact:** Following the public hearing the board may approve, deny or approve with conditions the application for a Major Subdivision. No Major Subdivision shall be approved unless the commission finds each of the following facts to be true:

1. The plan is consistent with the adopted plans and policies of the Town;
2. The plan complies with all applicable requirements of this ordinance; and
3. The plan has infrastructure as required by the ordinance to support the plan as proposed.

~~F.~~I. **Substantial Changes:** Substantial Changes from the approved ~~major subdivision plan~~ preliminary plat shall require additional review by the Planning Board. Substantial changes shall include, ~~but not be limited to~~ redesign of streets, increasing the number of lots, altering the design of more than twenty (20) percent of the lots, and/or reducing the number of lots by twenty (20) percent. All other changes shall be considered minor modifications subject to review by the Administrator.

~~H.~~J. **Appeals.** ~~Appeals of the decisions of the Administrator shall be heard by the Board of Adjustment in accordance with section 15.12.~~ An appeal of the decision to approve or deny a Preliminary Plat or a substantial change to an approved Preliminary Plat may be made by an aggrieved party to the Superior Court of Haywood County no later than thirty (30) days after the applicant receives the written copy of the decision.

K. **Permit Validity:** Unless substantial work has commenced or a building permit has been obtained, approval of a preliminary plat expires two (2) years from the date such approval was granted.

L. **Permit Extension:** The applicant may apply for an extension of the approval period. The Planning Board may approve an extension of the time required to file the final plat up to a total of five (5) years from the date the initial application was approved where warranted in light of all relevant circumstances, including, but not limited to, the size and phasing of development, the level of investment, the need for the development, economic cycles, and market conditions or other considerations. No further development activity shall be performed until the new approval is issued.

21. Amend Section 15.9.4 Final Plats as follows:

15.9.4. Final Plat for Major Subdivision:

G. **Appeals:** ~~Appeals of the decisions of the Administrator shall be heard by the Board of Adjustment in accordance with Section 15.12.~~ An appeal of the decision to approve or deny a Final Plat or to approve or deny a substantial change to an approved Preliminary Plat may be made by an aggrieved party to the Superior Court of Haywood County no later than thirty (30) days after the applicant receives the written copy of the decision.

J. **Permit Validity:** Final plats for major subdivisions ~~that have been granted approval~~ must be recorded within thirty (30) days following approval or the approval becomes invalid. No lots shall be sold prior to approval by the town and recording of the Final Plat for the subdivision.

K. **Permit Extension:** ~~The Administrator may grant a single extension of this time period of up to six (6) months upon submittal by the applicant of sufficient justification for the extension.~~ Re-submit.

22. Amend Section 15.10.3 Effect of Decisions as follows:

B. **Permit Validity:** ~~6 months~~ two (2) years to obtain building permit. Such permit shall remain valid as long as a valid building permit exists for the project.

C. **Permit Extension:** ~~6 months - one time only.~~ The applicant may apply for an extension of the approval period. The Planning Board may approve an extension of the time required to file the final plat up to a total of five (5) years from the date the initial application was approved where warranted in light of all relevant circumstances, including, but not limited to, the size and phasing of development, the level of investment, the need for the development, economic cycles, and market conditions or other considerations. No further development activity shall be performed until the new approval is issued.

23. Amend Section 15.11.2 Certification of Appropriateness – Minor Works for Local Landmarks and Local Historic Districts as follows:

A. **Applicability:** Minor works are those exterior changes that do not involve substantial alterations, additions or removals that could impair the integrity of the local landmark property and/or locally designated historic district as a whole.

E. Once an application containing all needed elements is submitted, the Administrator shall review the application and approve or deny it based on compliance with the standards contained in this chapter and in any applicable Design Review Guidelines or other standards that may apply.

I. **Permit Validity:** ~~6 months.~~ one (1) year.

J. **Permit Extension:** ~~None - must~~ Re-submit.

24. Amend Section 15.11.3 Certification of Appropriateness – Major Works for Local Landmarks and Local Historic Districts as follows:

B. (…) This advice shall be on the commission's Design Review Guidelines or other standards that may apply, the nature of the area where the proposed project will take place, and other relevant factors.

F. (…) No Certificate of Appropriateness shall be granted unless the commission finds that the application complies with the principles of the Design Review Guidelines adopted by the commission for review of changes and new construction.

I. Delay in Demolition of Local Landmarks and Buildings within Local Historic Districts: An application for a certificate of appropriateness authorizing the demolition, removal or destruction of a designated local landmark or a building, structure or site within a local historic district may not be denied except as provided below:

~~K.~~ L. **Permit Validity:** ~~6 months.~~ one (1) year.

~~L.~~ M. **Permit Extension:** ~~None – must~~ Re-submit.

25. Amend Section 15.12.1 Applicability as follows:

This process is hereby established to provide an appeal process for parties aggrieved by any order, requirement, decision or determination, other than the decision to approve or deny a minor subdivision plat, made by an administrative officer charged with enforcing the provisions of this ordinance. For appeals of decisions regarding minor subdivision plats, see 15.9.1(F).

26. Amend Section 15.13.3 Formal Review as follows:

A. **Action by the Board of Adjustment:**

1. Upon receipt of the request for a variance from the Administrator, the board of adjustment shall hold ~~a quasi-judicial~~ an evidentiary hearing on the request.

27. Amend Section 15.14.2 Review by Planning Board as follows:

B. **Additional Public Notification for Large Scale Amendments:** (…) When this occurs, the town may use the expanded published notice provisions found in the North Carolina General Statutes at Section ~~160A-384~~ 160D-601.

28. Replace Section 15.14.3 Protest Petitions as follows:

~~**15.14.3 Protest Petitions.**~~

~~A. **Qualification of Protest:** In accordance with G.S. 160A-385(a)(2) a valid protest petition must be signed by the owners of either twenty percent (20%) or more of the area included in the proposed change, or five percent (5%) of a 100-foot-wide buffer extending along the entire boundary of each discrete or separate area proposed to be rezoned. A street right-of-way is not to be considered in computing the 100-foot buffer area as long as that street right-of-way is 100 feet wide or less.~~

~~B. **Effect of Protest Petition of Board of Aldermen Vote:** With a valid protest petition, the amendment shall not become effective except by favorable vote of three-fourths (¾) of all the members of the Board of Aldermen.~~

~~C. **Duly Signed Petition Required:** No protest against any proposed amendment shall be valid or effective unless it is on a form provided by the Town actually bearing the signatures of the required number of property owners and stating that the signers do protest the proposed change or amendment. All such petitions shall be filed in the office of the Town Clerk for validation at or before 12:00 noon not less than 3 working days prior to the date of the hearing.~~

~~D. **Withdrawal of Protest Petition:** Any qualified property owner who signed the protest petition may withdraw their protest against a proposed zoning amendment any time prior to the meeting at which the rezoning will be considered.~~

15.14.3. Public Comment

Zoning regulations may from time to time be amended, supplemented, changed, modified, or repealed. If any resident or property owner in the local government submits a written statement regarding a proposed amendment, modification, or repeal to a zoning regulation, including a text or map amendment that has been properly initiated as provided in G.S. 160D-601, to the clerk to the board at least two business days prior to the proposed vote on such change, the clerk to the board shall deliver such written statement to the governing board. If the proposed change is the subject of a quasi-judicial proceeding under G.S. 160D-705 or any other statute, the clerk shall provide only the names and addresses of the individuals providing written comment, and the provision of such names and addresses to all members of the board shall not disqualify any member of the board from voting (160D-603).

29. Amend Section 15.14.4 Consideration by the Board of Aldermen as follows:

B. **Additional Public Notification for Large Scale Amendments:** (…) When this occurs, the town may use the expanded published notice provisions found in the North Carolina General Statutes at Section ~~160A-384~~ 160D-601.

30. Amend Section 15.14.5 Plan Consistency as follows:

In accordance with G.S. ~~160A-383~~ 160D-604(d); -605(a); -701, all such amendments shall be made in accordance with the Comprehensive Land ~~Development~~ Use Plan and any other officially adopted development plan.

31. Amend Section 15.15 Conditional Districts as follows:

Conditional Districts (Section 2.6) are districts with conditions voluntarily added by the applicant and approved in a legislative procedure by the Board of Aldermen in accordance with G.S. ~~160A-382~~ 160D.

32. Amend Section 15.15.2 Formal Review as follows:

D. The applicant will have a reasonable opportunity to consider and respond to any conditions and site-specific standards proposed by either the Planning Board or the Board of Aldermen prior to final action. In accordance with G.S. ~~160A-382(b)~~ 160D.

33. Replace Section 15.16 Vested Right as follows:

~~**15.16- Vested Right.**~~

~~**15.16.1 Purpose and Applicability.**~~

~~The zoning vested right is a right which is established pursuant to NCGS 160A[OG1] -385.1 to undertake and complete the development and use of property under the terms and conditions of an approved site specific development plan. Obtaining a zoning permit or preliminary plat subdivision approval through the vested rights procedure gives the applicant the right to start construction of the development as approved an additional two (2) to five (5) years to begin and/or complete work as appropriate.~~

~~**15.16.2 Vested Right Procedures.**~~

~~A. **Process Type:** Legislative.~~

~~B. **Pre-Application Procedure:** The applicant shall meet with the planning department prior to submitting an application to inquire about specific zoning requirements and obtain the proper application forms. The applicant shall be advised of all necessary information and requirements of the vested rights procedure[OG1].~~

~~C. **Required Application Information:** Master Plan (15.4.3).~~

~~D. **Determination of Completeness:** The Administrator shall review the application and accompanying site plan for compliance with the requirements of this chapter and other applicable regulations and schedule the matter for a public hearing before the Board of Aldermen.~~

~~E. **Public Notification:** Level 1, 2 and 4.~~

~~F. **Formal Review:** Following a public hearing, the Board of Aldermen shall take one of the following actions:~~

~~1. Approve the vested rights request. The Administrator is then directed to issue a vested rights zoning permit.~~

~~2. Approve the vested rights request subject to conditions which are necessary to protect the public health, safety and welfare. The Administrator is then directed to issue the vested rights zoning permit subject to the changes in the site plan to be made by the developer.~~

~~3. Table the vested rights request pending the submittal of additional information.~~

~~4. Deny the vested rights request.~~

~~G. **Appeals:** None.~~

~~**15.16.3 Vested Right Duration - Effect of Approval.**~~

~~A. **Maximum Term:** A zoning right that has been vested as provided in this section shall remain vested for a period of two (2) to five (5) years as approved by the Board of Aldermen.~~

~~B. **Building Permit/Preliminary Plan Required:** Upon issuance of a building permit/preliminary plan approval, the expiration provisions for those permits shall apply, except that neither shall not expire or be revoked because of the running of time while a zoning vested right under this section is outstanding. A zoning vested right shall terminate at the end of the applicable vesting period with respect to buildings and uses for which no valid building permit applications have been filed. [OG2]~~

~~C. **Town May Terminate Vested Rights Early:** The town may terminate the zoning vested rights upon payment to the affected landowner of compensation for all costs, expenses and other losses incurred by the landowner, including, but not limited to, all fees paid in consideration of all financing and all architectural, legal and other fees incurred after approval by the town.~~

~~D. **State or Federal Regulation Not Bound by Vested Right:** The zoning vested right may be terminated upon the enactment or promulgation of a state or federal law or regulation that precludes development as contemplated in the site specific development plan. In such a case the Board of Aldermen may, by ordinance, after notice and a hearing, modify the affected provisions upon a finding that the change in state or federal law has a fundamental effect on the plan.~~

~~E. **Shall Run with the Property:** A zoning vested right is not a personal right but shall attach to and run with the applicable property. After approval of a site specific development plan, all successors to the original landowner shall be entitled to exercise such right while applicable.~~

~~F. **Vested Right Not Exclusive:** Nothing in this section shall prohibit the revocation of the original approval or other remedies for failure to comply with applicable terms and conditions of the approval or this chapter.~~

15.16 Permit Choice and Vested Rights.

15.16.1 Permit Choice.

A. If an applicant submits a complete application for a development permit or approval and a development regulation changes between the time the application was submitted and a decision is made, the applicant may choose whether the application will be judged under the previously existing or modified rule (160D-108(b)).
B. When a development requires the issuance of multiple permits, the applicant may, for a period of up to 18 months, choose for each permit whether to proceed under the rule that existed at the time of application for the initial permit or under a modified rule.
C. For the purposes of this subsection, an erosion and sedimentation control permit or a sign permit do not count as an initial application for a development permit.

15.16.2 Vested Rights: Generally.

A. Pursuant to NC G.S. 160D-108, a zoning vested right is the right to undertake and complete the development and use of property as it was approved despite a subsequent change in applicable regulation. If the development regulation changes after the application has been approved, the project may continue under the old rule as initially approved.
B. A statutory vested right is established when:

    1. A site-specific vesting plan is approved; or

2. A final plat is approved for the initial phase of a multi-phase development; or
3. A development agreement is approved pursuant to NC G.S. Chapter 160D, Article 10; or
4. When a development permit has been issued for all other types of development.

15.16.3 Vested Right Terms.

A. Duration:

Type of Permit/Right	Term
Building Permit	6 months
Development Approval	12 months
Site-Specific Vesting Plan	2-5 years
Multi-Phase Development	7 years from first site plan approval
Development agreement	Per agreement negotiated pursuant to NCGS 160D, Article 10
Development discontinuation	2 years

A vested right for a site-specific vesting plan remains vested for a period of 2 years from the date of the first development approval or permit issued for the site. Pursuant to 160D-108.1(e)(2), the Administrator may provide an extension for a period exceeding two (2) years but not exceeding five (5) years where warranted in light of all relevant circumstances, including, but not limited to, the size and phasing of development, the level of investment, the need for the development, economic cycles, and market conditions or other considerations. These determinations are in the sound discretion of the Administrator and shall be made following the same application procedure as the initial approval.

B. A development permit or approval expires and the vested rights terminate at the time specified in subsection A, unless the work authorized by the permit has substantially commenced. For the purpose of this section, the **substantial commencement** of work shall be determined by the Administrator based on any of the following:

1. The development has received and maintained a valid erosion and sedimentation control permit and conducted grading activity on a continuous basis that has not been discontinued for longer than 30 days; or
2. The development has created substantial on-site infrastructure; or
3. The development has received and maintained a valid building permit.

C. Pursuant to NC G.S. 160D-108, even if work has substantially commenced, a development approval still expires if development work is intentionally and voluntarily discontinued for a period of not less than 24 consecutive months.

15.16.4 Definitions:

For the purpose of this section, the following definitions apply:

A. **Development-** as defined in Section 17.4 of this ordinance
B. **Development permit**- an administrative or quasi-judicial approval that is written and that is required prior to commencing development or undertaking a specific activity, project, or development proposal, including any of the following:
    1. Zoning permits.
    2. Site plan approvals.
    3. Special use permits.
    4. Variances.
    5. Certificates of appropriateness.
    6. Plat approvals.
    7. Development agreements.
    8. Building permits.
    9. Subdivision of land.
    10. State agency permits for development.
    11. Driveway permits.
    12. Erosion and sedimentation control permits (NC G.S. 143-755(e)(1)).

C. **Multi-phase developmen**t- a development containing 25 acres or more that is both of the following:
    1. Submitted for development permit approval to occur in more than one phase
    2. Subject to a master development plan with committed elements showing the type and intensity of use of each phase (NC G.S. 160D-108(j)).

D. **Site-specific vesting plans**- for the purposes of this chapter, the following types of development approvals are site-specific vested plans:
    1. Any development for which a special use permit is required;
    2. Major subdivisions;
    3. Major and minor site plans;
    4. Conditional zoning.

15.16.6. Relevant provisions:

A. **Run with the Property:** A zoning vested right is not a personal right but shall attach to and run with the applicable property. All successors to the original landowner may exercise such right under the same conditions and for the same time that the original applicant could have exercised such right.
B. **Town May Terminate Vested Rights Early:** The town may terminate the zoning vested rights upon payment to the affected landowner of compensation for all costs, expenses and other losses incurred by the landowner, including, but not limited to, all fees paid in consideration of all financing and all architectural, legal and other fees incurred after approval by the town.
C. **Not Exclusive:** Nothing in this section shall prohibit the revocation of the original approval or other remedies for failure to comply with applicable terms and conditions of the approval or this chapter.
D. **Hazard:** The town may terminate the zoning vested right if it determines after a public hearing that natural or man-made hazards are on or in the immediate vicinity of the property, and if not corrected, these hazards would pose a serious threat to the public health, safety, and welfare.

E. **State or Federal Regulation Not Bound by Vested Right:** The zoning vested right may be terminated upon the enactment or promulgation of a state or federal law or regulation that precludes development as contemplated in the site-specific vesting plan. In such a case the Board of Aldermen may, by ordinance, after notice and a hearing, modify the affected provisions upon a finding that the change in state or federal law has a fundamental effect on the plan.

34. Amend Section 16.1.2 Notice of Violation as follows:

A. Whenever the Administrator has reasonable cause to believe that a person is violating any of the provisions of this ordinance or any plan, order, or condition issued pursuant to this chapter, that official shall immediately notify ~~that person of the violation.~~each of the following, as applicable:

1. the holder of any development approval for the property;
2. the landowner; and
3. the person undertaking the work or activity that is the cause of the violation.

B. ~~Such notice of violation shall be in writing and shall be served by personal delivery or certified or registered mail, return receipt requested.~~

The notice of violation shall be delivered by personal delivery, electronic delivery, or first-class mail. The notice of violation may also be posted on the property.

35. Delete Section 16.2.3 Criminal Penalties and renumber subsequent Sections:

~~Pursuant to GS § 14-4, any person, firm, or corporation convicted of violating the provisions of this Ordinance shall, upon conviction, be guilty of a misdemeanor and shall be fined an amount consistent with the General Statutes.~~

36. Add the following to Section 17.3 Definitions, Use Type:

Dwelling- any building, structure, manufactured home, or mobile home, or part thereof, used and occupied for human habitation or intended to be so used, and includes any outhouses and appurtenances belonging thereto or usually enjoyed therewith.

Dwelling- Accessory. A smaller, secondary dwelling unit either detached or attached, such as a garage apartment or cottage, designed for occupancy by one or two persons ~~not exceeding 750 square feet of gross floor space~~ and located on a lot with an existing single-family dwelling. Said units shall not exceed one per lot.

37. Amend and add to Section 17.4 Definitions, General as follows:

Building. ~~Any structure built for support, shelter or enclosure for any occupancy or storage.~~ A structure with a roof and walls built for permanent use. When used in reference to a residential structure, any one- or two-family dwelling or portion thereof, including townhouses, that is used, or designed or intended to be used for habitation for living, sleeping, cooking, or eating purposes or any combination thereof, including accessory structures (NC Building Code: Residential Code Sec 202)

Administrative decision. A decision made in the implementation, administration, or enforcement of development regulations that involve the determination of facts and the application of objective standards set forth in Chapter 160D of the NC G.S. and the Town of Waynesville Code of Ordinances.

Quasi-judicial decision. A decision involving the finding of facts regarding a specific application of an ordinance and that requires the exercise of discretion when applying the standards of the ordinance. The term includes, but is not limited to decisions involving variances, special use permits, or certificates of appropriateness. (160D-102(28)).

Legislative decision. The adoption, amendment, or repeal of a regulation under NC G.S. Chapter 160D or Town of Waynesville Code of Ordinances. The term also includes the decision to approve, amend, or rescind a development agreement consistent with the provisions of Article 10 of the NC G.S. 160D.

Development. Any man-made change to improved or unimproved real estate, including, but not limited to: ~~buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.~~

a. The construction, erection, alteration, enlargement, renovation, substantial repair, movement to another site, or demolition of any structure.
b. The clearing, excavation, dredging, grading, filling, paving, drilling operations, mining, or alteration of land.
c. Storage of equipment or materials.
d. The subdivision of land as defined in this ordinance.
e. The initiation of substantial change in the use of land or the intensity of use of land.

For stormwater calculation, development shall be considered any land disturbing activity that increases the amount of built upon area or otherwise decreases the infiltration of precipitation into the soil.

38. Amend Section 17.5 Definitions, Flood Damage Prevention as follows:

Development. Any man-made change to improved or unimproved real estate, including, but not limited to: ~~buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.~~

a. The construction, erection, alteration, enlargement, renovation, substantial repair, movement to another site, or demolition of any structure.
b. The clearing, excavation, dredging, grading, filling, paving, drilling operations, mining, or alteration of land.
c. Storage of equipment or materials.
d. The subdivision of land as defined in this ordinance.
e. The initiation of substantial change in the use of land or the intensity of use of land.

For stormwater calculation, development shall be considered any land disturbing activity that increases the amount of built upon area or otherwise decreases the infiltration of precipitation into the soil.

ADOPTED this ___ Day of June, 2021.

TOWN OF WAYNESVILLE

_____
J. Gary Caldwell, Mayor

ATTEST:

_____
Eddie Ward, Town Clerk

APPROVED AS TO FORM:

_____
Ronald Sneed, Town Attorney

To:	Town of Waynesville Board of Aldermen
From:	Susan Teas Smith, Planning Board Chair
Date:	May 28, 2021
Subject:	Planning Board Report on Text Amendments pertaining to NCGS 160D
Description:	Recommendations for changes to the LDS in response to statutory guidelines

At a Special Called Meeting of the Planning Board on Wednesday, May 26, 2021, the Planning Board held a public hearing to consider staff-initiated text amendments to multiple sections of the Land Development Standards. The ordinance changes were prepared by staff and Attorney Ron Sneed's Office to bring the Town's Land Use Regulations into compliance with the updated NC General Statutes related to local government authority, known as 160A and re-organized as 160D. The Planning Board recommends the following:

1. The Zoning application should be approved and is consistent with the Town's 2035 Comprehensive Plan, and is reasonable and in the public interest because:

    - Proposed amendments will keep the Town of Waynesville in compliance with the current General Statutes for land use planning and zoning, and clarify definitions and procedures which should aid in land use decisions; and

    - The proposed amendments are consistent with the first goal of the 2035 Comprehensive Plan to continue to promote smart growth principles in land use planning and zoning.
        - Create walkable and attractive neighborhoods and commercial centers.
        - Encourage in-fill, mixed use, and context-sensitive development.
        - Promote conservation design to preserve important natural resources.
        - Reinforce the unique character of Waynesville.

The motion was approved unanimously by a vote of 7-0.

Susan Teas Smith, Planning Board Chair, 5/28/21 Date

Elizabeth Teague, Development Services Director, 5/28/21 Date

CONSISTENCY STATEMENT WORKSHEET

Date: June 22, 2021
Description: Text Amendments to Land Development Standards pertaining to 160D

In accordance with NCGS 160D-604(d); -605(a); -701, the Town of Waynesville Board of Aldermen find that in regards to a Text Amendment to the Land Development Standards

The Board hereby adopts the following statement(s) :

☐ The text amendment **is approved and is consistent with the Town's comprehensive land use plan** because:_____

_____

_____

The text amendment and **is reasonable and in the public interest because:**

_____

_____

_____

☐ The text amendment **is rejected because it is inconsistent with the Town's comprehensive land plan** and **is not reasonable and in the public interest** because _____

_____

_____

_____

_____

☐ In addition to approving this text amendment, this approval is **also deemed an amendment to the Town's comprehensive land use plan.** The change in conditions taken into account in amending the zoning ordinance to meet the development needs of the community and why this action is reasonable and in the public interest, are as follows: _____

_____

_____

Board Member_____, made a motion, seconded by _____

The motion passed _____. *(vote results here)*

_____ _____

J. Gary Caldwell, Mayor, Date Eddie Ward, Clerk, Date

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT:
This is a Public Hearing for June 22, 2021 to consider additional changes to the Town of Waynesville Code of Ordinances for compliance with NCGS 160D.

AGENDA INFORMATION:

Agenda Location:	New Business
Item Number:	**E5**
Department:	Development Services
Contact:	Elizabeth Teague, Olga Grooman
Presenter:	Olga Grooman, Attorney Anna Stearns

BRIEF SUMMARY:
In addition to the Land Development Standards, there are additional changes that need to be made to the Town Ordinances to bring it in compliance with NCGS Chapter 160D. This includes converting all references from "160A" to "160D" and updating required conflict of interest language within Article 4, inspections. Because these citations are in Ordinance Chapters other than the Land development Standards, staff is bringing them forward as a separate ordinance.

MOTIONS FOR CONSIDERATION:

1. Motion to adopt the attached text amendments to the Town Ordinance as presented (or as amended).

FUNDING SOURCE/IMPACT:

N/A

ATTACHMENTS:

1. Draft Ordinance

MANAGER'S COMMENTS AND RECOMMENDATIONS:

ORDINANCE NO. O-12-21

AN ORDINANCE AMENDING THE TEXT OF THE TOWN OF WAYNESVILLE LAND DEVELOPMENT STANDARDS

WHEREAS, the Town of Waynesville has the authority, pursuant to Part 3 of Article 19 of Chapter 160A, now Section III of Chapter 1 of 160D, of the North Carolina General Statutes, to adopt land development regulations, clarify such regulations, and may amend said regulations from time to time in the interest of the public health, safety and welfare; and

WHEREAS, the Town of Waynesville must comply with North Carolina General Statutes to maintain Land Development regulations comply with the most up to date version of State authorization statutes known as 160D by July 1, 2021.

WHEREAS, the Board of Aldermen find this Ordinance is consistent with the Town's 2035 Comprehensive Plan and that it is reasonable and in the public interest to "make decisions about resources and land use in accordance with North Carolina General Statutes." and

WHEREAS, after notice duly given, a public hearing was held on June 22, 2021 at the regularly scheduled meeting of the Board of Aldermen;

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE TOWN OF WAYNESVILLE, MEETING IN REGULAR SESSION ON _____AND WITH A MAJORITY OF THE BOARD MEMBERS VOTING IN THE AFFIRMATIVE, THE FOLLOWING:

That the Ordinance be amended as follows in compliance with statutory changes in N.C.G.S. 160D.

1. Amend PART I.- CHARTER, Article VII.- TRANSITIONAL PROVISIONS , Section 7.8 Building Permits as follows:

State Law Reference- Building Permits, G.S. § ~~160A-417~~ 160D- 403; -1108 et seq.

2. Amend Chapter 10 Buildings and Building Regulations as follows:

Footnotes:

State Law reference— Municipal authority to regulate the construction of buildings, G.S. ~~160A-411, 160A-412~~ 160D- 402; -404; -1102; -1104; state building code applicable throughout the state, G.S. 143-138(e).

3. Amend Article III PERMITS as follows:

Footnotes:

State Law reference— Building permits, G.S. ~~160A-417~~ 143-138; 160D- 403; -1108 et seq.

Section 10.76 Required; application.

(c) No permit ~~issued under G.S. 143-136 — 143-143.2 or 143-151.26 — 143-151.36~~ shall be required for any construction, installation, repair, replacement or alteration costing ~~$5,000.00~~ $15,000.00 or less (. . .)

State Law reference— Similar provisions, G.S. ~~160A-417~~ 160D- 403; -1108 et seq.

Section 10-80. Time limitations on validity.

State Law reference— Similar provisions, G.S. ~~160A-418~~ 160D-403(c); -1109.

Section 10.81.- Changes in work after issuance.

State Law reference— Similar provisions, G.S. ~~160A-419~~ 160D-403(d); -1110.

Section 10.82.- Revocation.

State Law reference— Similar provisions, G.S. ~~160A-422~~ 160D-403(f); -1113.

8. Amend Article IV.- INSPECTION DEPARTMENT as follows:

Footnotes:

State Law Reference- *Building inspection*, G.S. ~~160A-411~~ 160D- 402(b); -404(c); -1102.

Section 10-116.- Organization.

b). ~~On and after the applicable date set forth in the schedule in G.S. 160A-411, no~~ The Town of Waynesville ~~town~~ shall not employ an inspector to enforce the state building code as a member of the town inspection department who does not have (…).

Section 10-118. – Conflicts of interest.

~~No member of the inspection department shall be financially interested in the furnishing of labor, material or appliances for the construction, alteration or maintenance of any building within the town's jurisdiction or any part or system, or in the making of plans or specifications, unless he is the owner of the building. No member of the inspection department shall engage in any work which is inconsistent with his duties or with the interests of the town.~~

No staff member shall make a final decision on an administrative decision required by this Chapter if the outcome of that decision would have a direct, substantial, and readily identifiable financial impact on the staff member or if the applicant or other person subject to that decision is a person with whom the staff member has a close familial, business, or other associational relationship. If a staff member has a conflict of interest under this section, the decision shall be assigned to the supervisor of the staff person or such other staff person as may be designated by the development regulation or other ordinance.

No staff member shall be financially interested or employed by a business that is financially interested in a development subject to regulation under this Chapter unless the staff member is the owner of the land or building involved. No staff member or other individual or an employee of a company contracting with a local government to provide staff support shall engage in any work that is inconsistent with his or her duties or with the interest of the local government, as determined by the local government.

Section 10-123. Remedies.

State Law reference— Similar provisions, G.S. ~~160A-432~~ 160D-1123.

4. Amend Article V- UNSAFE BUILDINGS as follows:

Footnotes:

State Law Reference- Unsafe buildings, G.S. ~~160A-425~~ 160D-1116 et. seq.

Sec. 10-156- Inspection; notice to owner to correct.

(Code 1987, § 150.35)

State Law reference— Similar provisions, G.S ~~160A-425~~ 160D-1116.

Sec. 10-157- Condemnation of especially dangerous buildings.

(Code 1987, § 150.36)

State Law reference— Similar provisions, G.S ~~160A-426~~ 160D-1117.

Sec. 10-158- Failure of owner to take corrective action.

(Code 1987, § 150.37; Ord. No. 26-98, 8-25-1998; Ord. No. 5-05, 3-8-2005)

State Law reference— Similar provisions, G.S. ~~160A-428, 160A-429~~ 160D-1121.

Sec. 10-159- Appeal by owner.

(Code 1987, § 150.38)

State Law reference— Similar provisions, G.S. ~~160A-430~~ 160D-1123.

Sec. 10-160.- Enforcement procedures against owner.

(Code 1987, § 150.39)

State Law reference— Similar provisions, G.S. ~~160A-431~~ 160D-1124.

Sec. 10-161.- Enforcement.

(Ord. No. 10-10, 7-27-2010)

State Law reference— Similar provisions, G.S. ~~160A-432~~ 160D-1125.

5. Amend Chapter 38.- HOUSING as follows:

State Law Reference- Minimum housing standards, G.S. ~~160A-441~~ 160D-1201 et seq.

Sec. 38-1. – Findings and purpose.

(a) Pursuant to G.S. ~~160A-441~~ 160D-1201, it is found and declared that ~~there exist in the town dwellings which are~~ a dwelling shall not be unfit for human habitation due to dilapidation; (…).

(b) In order to protect the health, safety and public welfare of the residents of the town as authorized by G.S. ~~160A-441~~ 160D-1201 through ~~160A-450~~ 160D-1212, it is the purpose of this chapter to establish minimum standards of fitness for the initial and continued occupancy of all buildings used for human habitation, as expressly authorized by G.S. ~~160A-444~~ 160D-1201.

Sec. 38-2. – Jurisdiction.

State Law Reference- Territorial Jurisdiction, G.S. ~~160A-360~~ 160D-200; -202; -903.

6. Amend CHAPATER 38 – HOUSING, ARTICLE II. – ADMINISTRATION AND ENFORCEMENT as follows:

Sec. 38-38.- Enforcement Procedure.

(c) *Failure to comply with order.*

(1). (…) the codes administrator shall submit to the board of aldermen at its next regular meeting a resolution directing the town attorney to petition the superior court for an order directing that owner comply with the order of the codes administrator, as authorized by G.S. ~~160A-446(g)~~ 160D-1208(e).

(2). (…) dwelling or dwelling unit to be repaired, altered, improved, vacated, closed, removed, or demolished, as provided in the original order of the codes administrator, and pending removal or demolition, to place a placard on that dwelling as provided by G.S. ~~160A-443~~ 160D-1203 and section 38-40.

(d) *Appeals from orders of the codes administrator.*

(1) (…) or by a court of record upon petition made pursuant to G.D. ~~160A-446(f)~~160D-1208(d) and subsection (e) of this section.

(e) *Petition to superior court by owner. (…)* to petition the superior court for a temporary injunction restraining the codes administrator pending a final disposition of the cause, as provided by G.S. ~~160A-446(f)~~160D-1208(d).

State Law Reference- Similar Provisions, G.S. ~~160A-443~~ 160D-1203.

Sec. 38-40.- In rem action by codes administrator; placarding.

(a) (…) or upon adoption by the board of aldermen of an ordinance authorizing and directing him to do so, as provided by G.S. ~~160A-443(5)~~ 160D-1203 and (…).

(b) (…) property is located and shall be indexed in the name of the property owner in the grantor index, as provided by G.S. ~~160A-443(5)~~ 160D-1203.

Sec. 38-41.- Costs a lien on premises.

As provided by G.S. ~~160A-443(6)~~ 160D-1203, the cost of any repairs, alterations or improvements, or of vacating and closing, or removal or demolition, caused to be made or done by the codes administrator pursuant to section 38-40 shall be a lien against the real property upon which such cost was incurred. The lien shall be filed, having priority, and be collected in the same manner as the lien for special assessments established by G.S. 160A-216 through 160A-238.

7. Amend Chapter 50- SUBDIVISIONS as follows:

Footnotes:

State Law Reference- Subdivision regulations G.S. ~~160A-371~~ 160D-801 et seq.

8. Amend Chapter 62 – Vegetation, ARTICLE II.- TREES AND SHRUBS, DIVISION 2.- COMMUNITY APPEARANCE COMMISSION as follows:

Sec. 62-71.- Established; membership and terms.

(a) There is hereby established a community appearance commission (referred to in this division as the "commission") under the authority of G.S. ~~160A-451~~ 160D-304.

Sec. 62-76.- Powers and duties.

The commission is authorized and empowered to undertake such actions reasonably necessary to the discharge and conduct of its duties and responsibilities as outlined in this division and G.S. ~~160A-452~~ 160D-960.

ADOPTED this 8th Day of June , 2021.

TOWN OF WAYNESVILLE

J. Gary Caldwell, Mayor

ATTEST:

Eddie Ward, Town Clerk

APPROVED AS TO FORM:

Ronald Sneed, Town Attorney

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: 6-22-21

SUBJECT During the Board's June 8th meeting the Board of Aldermen appointed Ron Sneed as the Interim Town Attorney. Mr. Sneed has drafted a contract for his services in this capacity. The Contract is attached:

AGENDA INFORMATION:

Agenda Location: NEW BUSINESS
Item Number: E6
Department: Administration
Contact: Town Manager Rob Hites
Presenter: Town Manager Rob Hites

BRIEF SUMMARY:

See above

MOTION FOR CONSIDERATION:

Approve the contract

FUNDING SOURCE/IMPACT: All Funds

ATTACHMENTS: Ron Sneed's proposed contract

MANAGER'S COMMENTS AND RECOMMENDATIONS:

FEE AGREEMENT

The Town of Waynesville hereby employs and retains the law firm of Ronald E. Sneed, P.A., Attorneys at Law, to serve as interim Town Attorney, to serve continuously until a new town attorney is selected and appointed.

In furtherance of our employment of said attorneys we agree as follows:

1. TO PAY ATTORNEYS A REASONABLE FEE which is reasonable based on the experience, reputation, and ability of the lawyer or lawyers performing the services, the likelihood that the acceptance of the particular employment will preclude other employment by the lawyer and the fee customarily charged in the locality for similar legal services.

2. AS PART OF the reasonable fee to be computed, the client agrees to pay attorney as follows:

$500.00 each meeting to attend each regularly schedule meetings of the Board of Aldermen

$250.00 each month to handle routine calls and messages to answer on simple matters not requiring research

$225.00 per hour to attend special called meetings of the aldermen

$275.00 per hour to handle litigation, special proceedings and other court matters

$225.00 per hour for all other matters

Travel time will be billed at one-half the hourly rate. Travel time will not be charged for the trip to Waynesville for regularly scheduled meetings.

3. The total fee for services rendered shall be paid as follows: Within 25 days of billing, said billing to be done monthly, at the beginning of the month, for the work performed during the previous month.

4. TO REIMBURSE attorneys for any out of pocket expenses (including travel, telephone tolls, copying and postage) or advancements or costs made by them on my behalf in this matter.

5. Attorney reserves the right to cease work on this matter and withdraw from representation of client if payments are not received in a timely manner as described above.

6. Attorney reserves the right to cease work on this matter and withdraw from representation of client if client ignores or disregards attorney's advice as to how parts of the matter or the matter as a whole should be handled.

7. NO GUARANTEE or promises concerning the outcome or results of this cause or any decisions by any courts have been made by attorney.

8. Client understands that THIS IS NOT A CONTINGENT FEE CONTRACT and that the fee charged by attorney must be paid regardless of the outcome or result obtained in my legal matter.

9. At the conclusion of your matter, we will retain your legal file for a period of seven years after we close out the case. At the expiration of the seven year period, we will destroy these files unless you notify us in writing that you wish to take possession of them. Do be aware of the fact that we no longer retain hard copies of items in your file, unless a original document is retained for any reason. If you want your file, we will provide it in electronic form at no cost, but if you wish to have it printed we reserve the right to charge administrative fees and costs associated with retrieving, printing and delivering such files.

RONALD E. SNEED, P.A.

By:_____
Ronald E. Sneed, Attorney

_____
Date

THE TOWN OF WAYNESVILLE, Client

By:_____

_____
Date

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT:
Appointment of a Town of Waynesville Representative to the Haywood County Planning Board.

AGENDA INFORMATION:

Agenda Location:	New Business
Item Number:	**E7**
Department:	Development Services
Contact:	Elizabeth Teague
Presenter:	Elizabeth Teague

BRIEF SUMMARY:
Haywood County has asked that the Town of Waynesville appoint someone to the County Planning Board to represent Town interests with regards to land use planning. In the past, this has been done by a Town Planning Board member, and Patrick McDowell has been the Town's representative for many years. Ginger Hain serves on the Town's Planning Board, was a member of the Comprehensive Land Use Plan Steering Committee and lives in the Waynesville ETJ. She has applied for multiple Board seats, including re-assignment on the Town Planning Board, and has volunteered to be considered for this position in lieu of her applications to the Cemetery Committee and Historic Preservation Commission. Given Ms. Hain's demonstrated experience, expertise and sensitivity to both county and municipal concerns, Development Services staff highly recommend her appointment.

MOTION FOR CONSIDERATION:

1. Motion to appoint Ginger Hain as the Town's representative to the County Planning Board.

FUNDING SOURCE/IMPACT:

N/A

ATTACHMENTS:

MANAGER'S COMMENTS AND RECOMMENDATIONS:

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Audit Proposal

AGENDA INFORMATION:

Agenda Location:	New Business
Item Number:	**E8**
Department:	Finance
Contact:	Autumn Lyvers, Finance Director
Presenter:	Autumn Lyvers, Finance Director

BRIEF SUMMARY:
Ray, Bumgarner, Kingshill, and Associates have submitted their audit proposal for FY2020-2021. The proposed audit fee for the current FYE 2020-2021 would be $27,500 plus out of pocket costs. The fee for the preparation of the financial statements will be based on the actual time spent at the firm's standard hourly rate of $95 per hour. The fee for all other services has increased from $95 per hour to $135 per hour. These fees are based on the anticipated cooperation from Town's personnel and the assumption that unexpected circumstances will not be encountered during the audit.

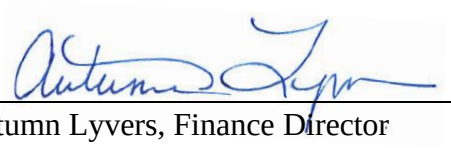
Note:
The only increase in fees paid over the last nine years is the hourly rate of $135 for other services outside of the audit ($27,500) and the writing of the financial statements ($95 per hour). The audit fee and hourly rate for financial statements remain unchanged.

MOTION FOR CONSIDERATION:

To approve the audit proposal and authorize the Mayor to sign the Contract to Audit Accounts.

FUNDING SOURCE/IMPACT:

The proposed audit costs are currently funded in the proposed 2021-2022 budget.



Autumn Lyvers, Finance Director — 6/15/2021 Date

ATTACHMENTS:
Audit Proposal

MANAGER'S COMMENTS AND RECOMMENDATIONS:

LGC-205 **CONTRACT TO AUDIT ACCOUNTS** Rev. 11/2020

The | Governing Board |

of | Primary Government Unit (or charter holder)
Town of Waynesville

and | Discretely Presented Component Unit (DPCU) (if applicable)

Primary Government Unit, together with DPCU (if applicable), hereinafter referred to as Governmental Unit(s)

and | Auditor Name
Ray, Bumgarner, Kingshill & Assoc., P.A.
Auditor Address
385 N Haywood St., Ste. 3, Waynesville NC 28786

Hereinafter referred to as Auditor

for

Fiscal Year Ending	Audit Report Due Date
06/30/21	01/31/22

Must be within four months of FYE

hereby agree as follows:

1. The Auditor shall audit all statements and disclosures required by U.S. generally accepted auditing standards (GAAS) and additional required legal statements and disclosures of all funds and/or divisions of the Governmental Unit(s). The non-major combining, and individual fund statements and schedules shall be subjected to the auditing procedures applied in the audit of the basic financial statements and an opinion shall be rendered in relation to (as applicable) the governmental activities, the business- type activities, the aggregate DPCUs, each major governmental and enterprise fund, and the aggregate remaining fund information (non-major government and enterprise funds, the internal service fund type, and the fiduciary fund types).

2. At a minimum, the Auditor shall conduct his/her audit and render his/her report in accordance with GAAS. The Auditor shall perform the audit in accordance with *Government Auditing Standards* if required by the State Single Audit Implementation Act, as codified in G.S. 159-34. If required by OMB *Uniform Administration Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and the State Single Audit Implementation Act, the Auditor shall perform a Single Audit. This audit and all associated audit documentation may be subject to review by Federal and State agencies in accordance with Federal and State laws, including the staffs of the Office of State Auditor (OSA) and the Local Government Commission (LGC). If the audit requires a federal single audit performed under the requirements found in Subpart F of the Uniform Guidance (§200.501), it is recommended that the Auditor and Governmental Unit(s) jointly agree, in advance of the execution of this contract, which party is responsible for submission of the audit and the accompanying data collection form to the Federal Audit Clearinghouse as required under the Uniform Guidance (§200.512).

If the audit and Auditor communication are found in this review to be substandard, the results of the review may be forwarded to the North Carolina State Board of CPA Examiners (NC State Board).

3. If an entity is determined to be a component of another government as defined by the group audit standards, the entity's auditor shall make a good faith effort to comply in a timely manner with the requests of the group auditor in accordance with AU-6 §600.41 - §600.42.

4. This contract contemplates an unmodified opinion being rendered. If during the process of conducting the audit, the Auditor determines that it will not be possible to render an unmodified opinion on the financial statements of the unit, the Auditor shall contact the LGC Staff to discuss the circumstances leading to that conclusion as soon as is practical and before the final report is issued. The audit shall include such tests of the accounting records and such other auditing procedures as are considered by the Auditor to be necessary in the circumstances. Any limitations or restrictions in scope which would lead to a qualification should be fully explained in an attachment to this contract.

5. If this audit engagement is subject to the standards for audit as defined in *Government Auditing Standards*, 2018 revision, issued by the Comptroller General of the United States, then by accepting this engagement, the Auditor warrants that he/she has met the requirements for a peer review and continuing education as specified in *Government Auditing Standards*. The Auditor agrees to provide a copy of the most recent peer review report to the Governmental Unit(s) and the Secretary of the LGC prior to the execution of an audit contract. Subsequent submissions of the report are required only upon report expiration or upon auditor's receipt of an updated peer review report. If the audit firm received a peer review rating other than pass, the Auditor shall not contract with the Governmental Unit(s) without first contacting the Secretary of the LGC for a peer review analysis that may result in additional contractual requirements.

If the audit engagement is not subject to *Government Accounting Standards* or if financial statements are not prepared in accordance with U.S. generally accepted accounting principles (GAAP) and fail to include all disclosures required by GAAP, the Auditor shall provide an explanation as to why in an attachment to this contract or in an amendment.

6. It is agreed that time is of the essence in this contract. All audits are to be performed and the report of audit submitted to LGC Staff within four months of fiscal year end. If it becomes necessary to amend this due date or the audit fee, an amended contract along with a written explanation of the delay shall be submitted to the Secretary of the LGC for approval.

7. It is agreed that GAAS include a review of the Governmental Unit's (Units') systems of internal control and accounting as same relate to accountability of funds and adherence to budget and law requirements applicable thereto; that the Auditor shall make a written report, which may or may not be a part of the written report of audit, to the Governing Board setting forth his/her findings, together with his recommendations for improvement. That written report shall include all matters defined as "significant deficiencies and material weaknesses" in AU-C 265 of the *AICPA Professional Standards (Clarified)*. The Auditor shall file a copy of that report with the Secretary of the LGC.

8. All local government and public authority contracts for audit or audit-related work require the approval of the Secretary of the LGC. This includes annual or special audits, agreed upon procedures related to internal controls, bookkeeping or other assistance necessary to prepare the Governmental Unit's (Units') records for audit, financial statement preparation, any finance-related investigations, or any other audit- related work in the State of North Carolina. Approval is not required on contracts and invoices for system improvements and similar services of a non-auditing nature.

9. Invoices for services rendered under these contracts shall not be paid by the Governmental Unit(s) until the invoice has been approved by the Secretary of the LGC. (This also includes any progress billings.)[G.S. 159-34 and 115C-447] All invoices for Audit work shall be submitted in PDF format to the Secretary of the LGC for approval. The invoice marked 'approved 'with approval date shall be returned to

the Auditor to present to the Governmental Unit(s) for payment. This paragraph is not applicable to contracts for audits of hospitals.

10. In consideration of the satisfactory performance of the provisions of this contract, the Governmental Unit(s) shall pay to the Auditor, upon approval by the Secretary of the LGC if required, the fee, which includes any costs the Auditor may incur from work paper or peer reviews or any other quality assurance program required by third parties (federal and state grantor and oversight agencies or other organizations) as required under the Federal and State Single Audit Acts. This does not include fees for any pre-issuance reviews that may be required by the NC Association of CPAs (NCACPA) Peer Review Committee or NC State Board of CPA Examiners (see Item 13).

11. If the Governmental Unit(s) has/have outstanding revenue bonds, the Auditor shall submit to LGC Staff, either in the notes to the audited financial statements or as a separate report, a calculation demonstrating compliance with the revenue bond rate covenant. Additionally, the Auditor shall submit to LGC Staff simultaneously with the Governmental Unit's (Units') audited financial statements any other bond compliance statements or additional reports required by the authorizing bond documents, unless otherwise specified in the bond documents.

12. After completing the audit, the Auditor shall submit to the Governing Board a written report of audit. This report shall include, but not be limited to, the following information: (a) Management's Discussion and Analysis, (b) the financial statements and notes of the Governmental Unit(s) and all of its component units prepared in accordance with GAAP, (c) supplementary information requested by the Governmental Unit(s) or required for full disclosure under the law, and (d) the Auditor's opinion on the material presented. The Auditor shall furnish the required number of copies of the report of audit to the Governing Board upon completion.

13. If the audit firm is required by the NC State Board, the NCACPA Peer Review Committee, or the Secretary of the LGC to have a pre-issuance review of its audit work, there shall be a statement in the engagement letter indicating the pre-issuance review requirement. There also shall be a statement that the Governmental Unit(s) shall not be billed for the pre-issuance review. The pre-issuance review shall be performed prior to the completed audit being submitted to LGC Staff. The pre-issuance review report shall accompany the audit report upon submission to LGC Staff.

14. The Auditor shall submit the report of audit in PDF format to LGC Staff. For audits of units other than hospitals, the audit report should be submitted when (or prior to) submitting the final invoice for services rendered. The report of audit, as filed with the Secretary of the LGC, becomes a matter of public record for inspection, review and copy in the offices of the LGC by any interested parties. Any subsequent revisions to these reports shall be sent to the Secretary of the LGC along with an Audit Report Reissued Form (available on the Department of State Treasurer website). These audited financial statements, excluding the Auditors' opinion, may be used in the preparation of official statements for debt offerings by municipal bond rating services to fulfill secondary market disclosure requirements of the Securities and Exchange Commission and for other lawful purposes of the Governmental Unit(s) without requiring consent of the Auditor. If the LGC Staff determines that corrections need to be made to the Governmental Unit's (Units') financial statements, those corrections shall be provided within three business days of notification unless another deadline is agreed to by LGC Staff.

15. Should circumstances disclosed by the audit call for a more detailed investigation by the Auditor than necessary under ordinary circumstances, the Auditor shall inform the Governing Board in writing of the need for such additional investigation and the additional compensation required therefore. Upon approval by the

Secretary of the LGC, this contract may be modified or amended to include the increased time, compensation, or both as may be agreed upon by the Governing Board and the Auditor.

16. If an approved contract needs to be modified or amended for any reason, the change shall be made in writing and pre-audited if the change includes a change in audit fee (pre-audit requirement does not apply to charter schools or hospitals). This amended contract shall be completed in full, including a written explanation of the change, signed and dated by all original parties to the contract. It shall then be submitted to the Secretary of the LGC for approval. No change to the audit contract shall be effective unless approved by the Secretary of the LGC, the Governing Board, and the Auditor.

17. A copy of the engagement letter, issued by the Auditor and signed by both the Auditor and the Governmental Unit(s), shall be attached to this contract, and except for fees, work, and terms not related to audit services, shall be incorporated by reference as if fully set forth herein as part of this contract. In case of conflict between the terms of the engagement letter and the terms of this contract, the terms of this contract shall take precedence. Engagement letter terms that conflict with the contract are deemed to be void unless the conflicting terms of this contract are specifically deleted in Item 28 of this contract. Engagement letters containing indemnification clauses shall not be accepted by LGC Staff.

18. Special provisions should be limited. Please list any special provisions in an attachment.

19. A separate contract should not be made for each division to be audited or report to be submitted. If a DPCU is subject to the audit requirements detailed in the Local Government Budget and Fiscal Control Act and a separate audit report is issued, a separate audit contract is required. If a separate report is not to be issued and the DPCU is included in the primary government audit, the DPCU shall be named along with the primary government on this audit contract. DPCU Board approval date, signatures from the DPCU Board chairman and finance officer also shall be included on this contract.

20. The contract shall be executed, pre-audited (pre-audit requirement does not apply to charter schools or hospitals), and physically signed by all parties including Governmental Unit(s) and the Auditor, then submitted in PDF format to the Secretary of the LGC.

21. The contract is not valid until it is approved by the Secretary of the LGC. The staff of the LGC shall notify the Governmental Unit and Auditor of contract approval by email. The audit should not be started before the contract is approved.

22. Retention of Client Records: Auditors are subject to the NC State Board of CPA Examiners' Retention of Client Records Rule 21 NCAC 08N .0305 as it relates to the provision of audit and other attest services, as well as non-attest services. Clients and former clients should be familiar with the requirements of this rule prior to requesting the return of records.

23. This contract may be terminated at any time by mutual consent and agreement of the Governmental Unit(s) and the Auditor, provided that (a) the consent to terminate is in writing and signed by both parties, (b) the parties have agreed on the fee amount which shall be paid to the Auditor (if applicable), and (c) no termination shall be effective until approved in writing by the Secretary of the LGC.

24. The Governmental Unit's (Units') failure or forbearance to enforce, or waiver of, any right or an event of breach or default on one occasion or instance shall not constitute the waiver of such right, breach or default on any subsequent occasion or instance.

25. There are no other agreements between the parties hereto and no other agreements relative hereto that shall be enforceable unless entered into in accordance with the procedure set out herein and approved by the Secretary of the LGC.

26. E-Verify. Auditor shall comply with the requirements of NCGS Chapter 64 Article 2. Further, if Auditor utilizes any subcontractor(s), Auditor shall require such subcontractor(s) to comply with the requirements of NCGS Chapter 64, Article 2.

27. **Applicable to audits with fiscal year ends of June 30, 2020 and later.** For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct and Governmental Auditing Standards, 2018 Revision (as applicable). Financial statement preparation assistance shall be deemed a "significant threat" requiring the Auditor to apply safeguards sufficient to reduce the threat to an acceptable level. If the Auditor cannot reduce the threats to an acceptable level, the Auditor cannot complete the audit. If the Auditor is able to reduce the threats to an acceptable level, the documentation of this determination, including the safeguards applied, must be included in the audit workpapers.

All non-attest service(s) being performed by the Auditor that are necessary to perform the audit must be identified and included in this contract. The Governmental Unit shall designate an individual with the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the services and accept responsibility for the results of the services performed. If the Auditor is able to identify an individual with the appropriate SKE, s/he must document and include in the audit workpapers how he/she reached that conclusion. If the Auditor determines that an individual with the appropriate SKE cannot be identified, the Auditor cannot perform both the non-attest service(s) and the audit. See "Fees for Audit Services" page of this contract to disclose the person identified as having the appropriate SKE for the Governmental Unit.

28. **Applicable to audits with fiscal year ends of June 30, 2021 and later. T**he auditor shall present the audited financial statements including any compliance reports to the government unit's governing body or audit committee in an official meeting in open session as soon as the audited financial statements are available but not later than 45 days after the submission of the audit report to the Secretary. The auditor's presentation to the government unit's governing body or audit committee shall include:

a) the description of each finding, including all material weaknesses and significant deficiencies, as found by the auditor, and any other issues related to the internal controls or fiscal health of the government unit as disclosed in the management letter, the Single Audit or Yellow Book reports, or any other communications from the auditor regarding internal controls as required by current auditing standards set by the Accounting Standards Board or its successor;

b) the status of the prior year audit findings;

c) the values of Financial Performance Indicators based on information presented in the audited financial statements; and

d) notification to the governing body that the governing body shall develop a "Response to the Auditor's Findings, Recommendations, and Fiscal Matters," if required under 20 NCAC 03 .0508.

29. Information based on the audited financial statements shall be submitted to the Secretary for the purpose of identifying Financial Performance Indicators and Financial Performance Indicators of Concern.

FEES FOR AUDIT SERVICES

1. For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct (as applicable) and *Governmental Auditing Standards,2018 Revision*. Refer to Item 27 of this contract for specific requirements. The following information must be provided by the Auditor; contracts presented to the LGC without this information will be not be approved.

Financial statements were prepared by: ☑ Auditor ☐ Governmental Unit ☐ Third Party

If applicable: Individual at Governmental Unit designated to have the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the non-attest services and accept responsibility for the results of these services:

Name:	***Title and Unit / Company:***	***Email Address:***
Autumn Lyvers	Finance Director	alyvers@waynesvillenc.gov

OR Not Applicable ☐ *(Identification of SKE Individual not applicable for GAAS-only audit or audits with FYEs prior to June 30, 2020.)*

2. Fees may not be included in this contract for work performed on Annual Financial Information Reports (AFIRs), Form 990s, or other services not associated with audit fees and costs. Such fees may be included in the engagement letter but may not be included in this contract or in any invoices requiring approval of the LGC. See Items 8 and 13 for details on other allowable and excluded fees.

3. Prior to submission of the completed audited financial report, applicable compliance reports and amended contract (if required) the Auditor may submit invoices for approval for services rendered, not to exceed 75% of the billings for the last annual audit of the unit submitted to the Secretary of the LGC. Should the 75% cap provided below conflict with the cap calculated by LGC Staff based on the billings on file with the LGC, the LGC calculation prevails. All invoices for services rendered in an audit engagement as defined in 20 NCAC .0503 shall be submitted to the Commission for approval before any payment is made. Payment before approval is a violation of law. (This paragraph not applicable to contracts and invoices associated with audits of hospitals).

PRIMARY GOVERNMENT FEES

Primary Government Unit	Town of Waynesville
Audit Fee	$ 27500
Additional Fees Not Included in Audit Fee:	
Fee per Major Program	$
Writing Financial Statements	$ 95.00
All Other Non-Attest Services	$ 135.0
75% Cap for Interim Invoice Approval *(not applicable to hospital contracts)*	$ 20,625.00

DPCU FEES (if applicable)

Discretely Presented Component Unit	
Audit Fee	$
Additional Fees Not Included in Audit Fee:	
Fee per Major Program	$
Writing Financial Statements	$
All Other Non-Attest Services	$
75% Cap for Interim Invoice Approval *(not applicable to hospital contracts)*	$

SIGNATURE PAGE

AUDIT FIRM

Audit Firm* Ray, Bumgarner, Kingshill & Assoc., P.A.	
Authorized Firm Representative (typed or printed)* Nancy D. Lux, CPA	Signature*
Date* 6-14-21	Email Address* nlux@rbk-cpa.com

GOVERNMENTAL UNIT

Governmental Unit* Town of Waynesville	
Date Primary Government Unit Governing Board Approved Audit Contract* (G.S.159-34(a) or G.S.115C-447(a))	✓
Mayor/Chairperson (typed or printed)* Gary Caldwell, Mayor	Signature*
Date	Email Address gcaldwell@waynesvillenc.gov

Chair of Audit Committee (typed or printed, or "NA") NA	Signature
Date	Email Address

GOVERNMENTAL UNIT – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.

Primary Governmental Unit Finance Officer* (typed or printed) Autumn Lyvers	Signature* ✓ Autumn Lyvers
Date of Pre-Audit Certificate* ✓ 6/15/21	Email Address* alyvers@waynesvillenc.gov

SIGNATURE PAGE – DPCU
(complete only if applicable)

DISCRETELY PRESENTED COMPONENT UNIT

DPCU*	
Date DPCU Governing Board Approved Audit Contract* (Ref: G.S. 159-34(a) or G.S. 115C-447(a))	
DPCU Chairperson (typed or printed)*	Signature*
Date*	Email Address*

Chair of Audit Committee (typed or printed, or "NA")	Signature
Date	Email Address

DPCU – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

This instrument has been pre-audited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act.

DPCU Finance Officer (typed or printed)*	Signature*
Date of Pre-Audit Certificate*	Email Address*

Remember to print this form, and obtain all required signatures prior to submission.

PRINT

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Budget amendment for rehabilitation of "Old Haywood County Hospital" (Brookmont Lofts)

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: **E9**
Department: Finance
Contact: Autumn Lyvers, Finance Director
Presenter: Autumn Lyvers, Finance Director

BRIEF SUMMARY:

In January 2019 the Board of Aldermen adopted resolution #R-03-19 pledging financial assistance to the rehabilitation of the "Old Haywood County Hospital" in the form of waivers, grants, and public improvements. The resolution listed the following assistance totaling $172,042:

1. Waive permitting, taps and system development fees through a $7,200 grant.
2. Provide the necessary water and sewer to the master meter at an estimated value of $58,000.
3. Construct sidewalks to meet ADA and the Town's Development standards in an amount not to exceed $106,842.

Sidewalks have been installed at the site, and water/sewer infrastructure completed. Approval of the attached budget amendment will allow payment of the financial assistance as prescribed in the resolution.

MOTION FOR CONSIDERATION:

To approve the budget amendment as presented.

FUNDING SOURCE/IMPACT:

The $172,042 in financial assistance will be paid from the General Fund Balance.

Autumn Lyvers, Finance Director — 6/15/2021 Date

ATTACHMENTS:

Budget Amendment
Resolution #R-03-19

MANAGER'S COMMENTS AND RECOMMENDATIONS:

RESOLUTION #R-03-19

A RESOLUTION PLEDGING FINANCIAL ASSISTANCE TO THE REHABILITATION OF THE "OLD HAYWOOD COUNTY HOSPITAL" IN THE FORM OF WAIVERS, GRANTS PUBLIC IMPROVEMENTS

WHEREAS, The Board of Aldermen acting as a Redevelopment Authority as defined in GS 160A-505 recognizes that areas of blight exist in the Town; and

WHEREAS, The Board of Aldermen of the Town of Waynesville hereby initiates the project and has invested community development resources in the Half Mile area within the last ten years as outlined in the "North Main and Old Hospital Redevelopment Plan"; and

WHEREAS, The Board has authorized a study of an area of one half mile surrounding "The Old Haywood County Hospital" and found that the land area of the "Old Hospital and the "County Annex meets the statutory definition of "blighted area"; and

WHEREAS, the Board finds that the rehabilitation of this area is necessary to address deterioration and blight in the interest of the public health, safety, morals, and or welfare of the residents of Waynesville; and

WHEREAS, the Planning Board recommends that the Board of Aldermen designate the "Old Hospital" and "County Annex" as a redevelopment area; and

WHEREAS, the lack of safe, sanitary affordable housing is one of the most critical needs within the "Old Hospital" and "County Annex" redevelopment area"; and

WHEREAS the Board of Aldermen have the opportunity to partner with Haywood County and Landmark Asset Services Inc. to rehabilitate the "Old Haywood County Hospital" into an affordable housing community known at the "Brookmont Lofts".

BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE TOWN OF WAYNESVILLE THAT IT; OFFER THE FOLLOWING WAIVERS, GRANTS AND SERVICES:

1. Waive permitting, taps and system developments fees through a $7,200 grant.
2. Provide the necessary water and sewer to the master meter at an estimated value of $58,000.
3. Construct sidewalks to meet ADA and the Town's Development Standards in an amount not to exceed $106,842.

Adopted this the 8th day of January, 2019

Town of Waynesville

Gavin A. Brown, Mayor

Attest:

Eddie Ward, Town Clerk

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Grant Project Ordinance establishing a Special Revenue Fund to account for grant revenues and related expenditures, including funds to be received under the American Rescue Plan Act of 2021 (ARP).

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: **E10**
Department: Finance
Contact: Autumn Lyvers, Finance Director
Presenter: Autumn Lyvers, Finance Director

BRIEF SUMMARY:

As a non-entitlement municipality receiving our American Rescue Plan (ARP) funding through the State of North Carolina Pandemic Recovery Office, we are required to account for ARP funds in a separate grant projects fund so that these federal funds will not be co-mingled with other general revenues.

Approval of the attached Grant Projects Ordinance will establish the separate special revenue fund to account for ARP revenue, and appropriate ARP funds to be spent on the following items in the upcoming fiscal year:

First Allocation	**FY2022**
Police Vehicles	$ 250,000
Fire Vehicles	$ 80,000
Storm Sewer Upgrade – Kentucky Ave	$ 90,000
Garbage Can Replacements	$ 289,000
Greenway Bridge PARTF Match	$ 210,000
COVID Vaccination Incentive	$ 19,000
Helping Hands (Year 1)	$ 35,000
Total Allocation	**$ 973,000**

American Rescue Plan funding identified for water and sewer infrastructure will be accounted for directly in the Water and Sewer Enterprise Funds as prescribed by the State Treasurer's Office.

MOTION FOR CONSIDERATION:

To adopt the attached Grant Project Ordinance 1) authorizing the Finance Director to set up a special revenue fund to account for multiyear grant activity and 2) appropriating $973,000 of ARP funds for expenditures outlined above.

FUNDING SOURCE/IMPACT:

No funding impact to the General Fund.

Autumn Lyvers, Finance Director — 6/15/2021 Date

ATTACHMENTS:

1. Grant Project Ordinance

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Ordinance No. O-10-21

Grant Project Ordinance

WHEREAS, the Board of Aldermen of the Town of Waynesville wishes to establish a special revenue fund to account for multiyear grant awards.

NOW, THEREFORE, BE IT ORDAINED by the Board of Aldermen of the Town of Waynesville that the following grant project ordinance is hereby adopted:

Section 1. The following sources of grant funds are anticipated to be available:

Restricted Intergovernmental Revenue		
American Rescue Plan Act	273350-433010-23001	$ 973,000
Total Revenues		$ 973,000

Section 2. The following amounts are appropriated for authorized expenditures of the grant funds:

Police Department - Vehicles	274310-545400	$ 250,000
Fire Department - Vehicles	274340-545400	80,000
Streets & Sanitation – Capital Improv.	274510-545900	90,000
Streets & Sanitation – Materials/Supplies	274510-532920	289,000
Parks & Recreation – Greenways	276125-536410	210,000
Special Appropriation – Contributions	275300-536910	35,000
Administration – Health and Wellness	274120-511845	19,000
Total Appropriations		$ 973,000

Section 3. The additional appropriation or closure of grant funds and expenditure authorizations will be submitted to the Board of Aldermen as an amendment to the Grant Project Ordinance.

Adopted this 22nd day of June 2021.

Town of Waynesville

_____

J. Gary Caldwell
Mayor

Attest:

_____

Eddie Ward
Town Clerk

Approved As To Form:

_____

Ronald Sneed
Town Attorney

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
June 22, 2021

SUBJECT: Reimbursement agreement for Fire Stion #2.1 associated costs

AGENDA INFORMATION:

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Agenda Location:	**NEW BUSINESS**
Item Number:	**E11**
Department:	Administration
Contact:	Rob Hites
Presenter:	**Rob Hites**

BRIEF SUMMARY:

Autumn and I had a discussion regarding the pros and cons of refinancing the USDA and BB&T loans including rolling the purchase of the fire station property and environmental tests into the refinancing. Mr. Jessup stated that USDA encourages refinancing of its debts and does not charge any pre-payment penalties. We will have to study the loan documents with BB&T to determine if we can roll the $1,000,000 remaining into the new refinancing agreement. Mr. Jessup states that we can roll the purchase of the Fire Station land and the environmental study fees into the loan if we adopt a pre-payment resolution (attached).

MOTION FOR CONSIDERATION:

Adopt the pre-payment resolution

FUNDING SOURCE/IMPACT: General

ATTACHMENTS: Resolution

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Mr. Jessup states that if we refinance the Fire Station and roll the fire station #2 land into the loan the Town can use Fire Station #1 as collateral for the land. It is a good time to refinance. Mr. Jessup can begin to draft the necessary RFP to lenders to test the market for such a refinancing. The Board will not be obligated to execute such a refinancing if it finds the proposals unsuitable.

RESOLUTION DECLARING THE INTENT TO REIMBURSE EXPENDITURES -- FIRE AND EMERGENCY SERVICES FACILITY

WHEREAS, the Finance Officer has described to the Board the desirability of adopting a resolution, as provided under federal tax law, to facilitate the Town's using financing proceeds to restore the Town's funds when the Town makes capital expenditures prior to closing on a bond issue or other financing.

BE IT RESOLVED by the Town as follows:

1. The project is for the purchase of land, design and construction of a fire and emergency services facility. The project is to be financed. The currently expected type of financing is an installment financing contract as allowed for under N.C.G.S 160A-20. The currently expected maximum amount of bonds or other obligations to be issued or contracted for the project is $ 5,000,000.

2. Funds that have been advanced or may be advanced from the general fund for project costs are intended to be reimbursed from the financing proceeds.

3. The Town intends for the adoption of this resolution to be a declaration of its official intent to reimburse itself from financing proceeds for project cost expenditures.

Adopted this_____day of _____2021.

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Refinancing of USDA and BB&T Loan including purchase of fire station land

AGENDA INFORMATION:

Agenda Location: **NEW BUSINESS**
Item Number: **E12**
Department: Administration
Contact: Rob Hites
Presenter: **Rob Hites**

BRIEF SUMMARY:

Alderman Dickson requested that Ms. Lyvers and I discuss the possibility of refinancing the 4%, 40-year loan for Fire Station #1. We contacted the Town's bond attorney Bob Jessup and he stated that the USDA welcomes refinancing loans so the principal can be used for new loans. He stated that he could draft an RFP on the refinancing of the loan and send it to lenders. They would supply proposals for refinancing USDA debt at no cost or obligation to the Town. The Town also owes BB&T approximately $1,000,000 for a loan associated with the Town Hall. Should the Board be interested in refinancing the USDA debt the staff would also request Mr. Jessup study this agreement to determine if it could also be refinanced without pre-payment penalty. Mr. Jessup stated that if the Board adopt a "reimbursement agreement" ahead of the purchase of the land it could roll the $400,000 purchase of the fire station land into the borrowing as well (That agreement appears in this agenda).

MOTION FOR CONSIDERATION:

Request Bob Jessup and the staff to draft an RFP to be sent out to lending institutions and determine if refinancing the debt would be advantageous to the Town.

FUNDING SOURCE/IMPACT: General

ATTACHMENTS: None

MANAGER'S COMMENTS AND RECOMMENDATIONS:

With the exception of Mr. Jessup's fees there is no cost involved in testing the refinancing waters to determine if refinancing the USDA and BB&T debt would be advantageous to the Town. Should the Board adopt a "reimbursement agreement" it may also finance the purchase of the Fire Station #2 land and as well as the environmental studies.

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: 6/22/21

SUBJECT: Approve purchase of 3.6 acres of property located at Mosaic Place

AGENDA INFORMATION:

Agenda Location: **NEW BUSINESS**
Item Number: **E13**
Department: Administration
Contact: Rob Hites
Presenter: **Rob Hites**

BRIEF SUMMARY:

The Town contracted with Glenn Tolar to purchase 3.6 acres of property located at Mosaic Place in Hazelwood. The property is the site of a burned and demolished tannery. After the tannery burned much of the structure was buried on site. The Town has conducted both a Phase I and Phase II environmental study on the site to ensure that there are no structural or environmental issues that would prevent the Town from constructing a fire station on the site. The Phase I study indicated that the first five feet of soil contained the remnants of the tannery which made standard footings and slab construction very difficult. The Phase I study also recommended that further study be made to ensure that the site not contain contaminants that would violate EPA standards for location of a fire station. The Town engaged Bunnell Lammons (BLE) to conduct a Phase II study to determine if environmental contamination exits in such quantities that a Fire Station would not be permitted to be constructed on the site. The Town also requested that the firm's structural engineers study the reports and determine if they could recommend a foundation design that would resolve the problem of constructing a structure on the site without removing the unstable soil.

The Phase II reports located several chemicals in the soil that were on EPA's list of contaminants but not in such quantity that they would prohibit a Fire Station from being located on the site. They stated that the building slab and parking lot would serve to encapsulate the material from the building. In addition to the findings on the contaminants the firm also recommend a foundation system where rock filled piles are installed to carry the load of the building to load bearing soil located approximately 5-7 feet below the present surface.

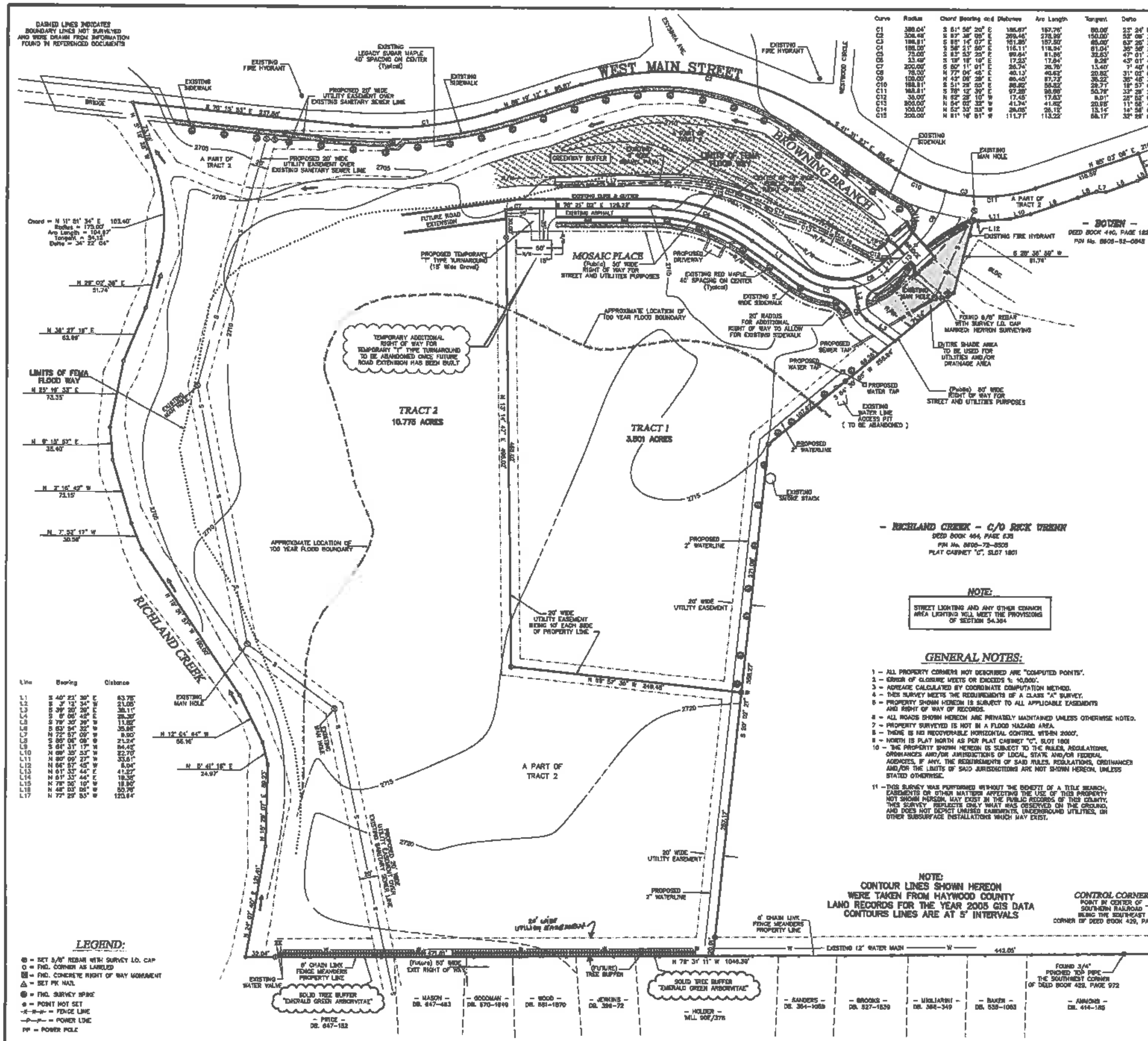
MOTION FOR CONSIDERATION:

Approve the purchase of the 3.67 site located a 33 Mosaic Drive for a purchase price of $405,000 dollars and to appropriate the funds from the General Fund Balance. (The additional $5,000 is intended to cover closing costs, attorney's fees, etc.)

FUNDING SOURCE/IMPACT: General Fund Balance

ATTACHMENTS: Phase II Environmental Study

MANAGER'S COMMENTS AND RECOMMENDATIONS: Approve the purchase of the property.



NOTE:
CONTOUR LINES SHOWN HEREON
WERE TAKEN FROM HAYWOOD COUNTY
LAND RECORDS FOR THE YEAR 2005 GIS DATA
CONTOURS LINES ARE AT 5' INTERVALS

Curve	Radius	Chord Bearing and Distance		Arc Length	Tangent	Delta
C1	380.04'	S 61° 56' 20" E	185.67'	157.76'	80.00'	23° 24' 55"
C2	304.48'	S 87° 38' 05" E	269.46'	278.99'	150.00'	52° 06' 25"
C3	186.81'	S 85° 14' 07" E	151.85'	157.50'	85.00'	63° 26' 29"
C4	188.00'	S 56° 21' 50" E	116.11'	118.04'	61.04'	35° 56' 23"
C5	73.00'	S 83° 53' 25" E	59.64'	61.06'	32.63'	47° 01' 33"
C6	23.49'	S 18° 18' 19" E	17.23'	17.64'	9.28'	43° 01' 46"
C7	200.00'	S 60° 11' 01" E	26.74'	26.76'	13.40'	7° 40' 00"
C8	78.00'	N 77° 04' 48" E	40.13'	40.62'	20.82'	31° 02' 04"
C9	100.00'	N 42° 08' 29" E	66.46'	67.73'	36.22'	38° 48' 31"
C10	186.81'	S 51° 28' 55" E	56.62'	58.82'	29.71'	18° 57' 04"
C11	165.81'	S 78° 12' 39" E	97.28'	98.66'	50.78'	33° 28' 20"
C12	36.00'	N 62° 28' 10" W	17.45'	17.63'	9.01'	28° 02' 02"
C13	200.00'	N 84° 02' 32" W	41.74'	41.82'	20.95'	11° 58' 47"
C14	100.00'	N 52° 32' 35" W	26.05'	26.12'	13.14'	14° 58' 05"
C15	200.00'	N 81° 16' 51" W	111.71'	113.22'	58.17'	32° 26' 03"

Line	Bearing	Distance
L1	S 40° 21' 30" E	63.75'
L2	S 3° 12' 34" W	21.05'
L3	S 39° 20' 29" E	38.11'
L4	S 6° 08' 42" E	28.30'
L5	S 79° 32' 39" W	11.82'
L6	S 63° 54' 32" W	35.86'
L7	N 72° 57' 09" W	9.90'
L8	S 85° 06' 09" W	21.24'
L9	S 64° 31' 17" W	54.45'
L10	N 69° 35' 53" W	22.70'
L11	N 80° 09' 27" W	33.61'
L12	N 64° 57' 45" W	6.04'
L13	N 61° 33' 44" E	41.27'
L14	N 61° 33' 44" E	19.35'
L15	N 78° 35' 10" W	18.90'
L16	N 48° 03' 08" W	50.78'
L17	N 77° 29' 53" W	120.64'

LEGEND:

- ◉ = SET 5/8" REBAR WITH SURVEY I.D. CAP
- ○ = FND. CORNER AS LABELED
- ▣ = FND. CONCRETE RIGHT OF WAY MONUMENT
- △ = SET PK NAIL
- ● = FND. SURVEY SPIKE
- • = POINT NOT SET
- -x-x-x- = FENCE LINE
- -P-P- = POWER LINE
- PP = POWER POLE

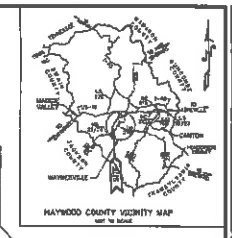
- RICHLAND CREEK - C/O RICK URENN
DEED BOOK 464, PAGE 535
PIN No. 8605-72-8505
PLAT CABINET "C", SLOT 1801

NOTE:

STREET LIGHTING AND ANY OTHER COMMON AREA LIGHTING WILL MEET THE PROVISIONS OF SECTION 54.384

GENERAL NOTES:

1 – ALL PROPERTY CORNERS NOT DESCRIBED ARE "COMPUTED POINTS".
2 – ERROR OF CLOSURE MEETS OR EXCEEDS 1: 10,000'.
3 – ACREAGE CALCULATED BY COORDINATE COMPUTATION METHOD.
4 – THIS SURVEY MEETS THE REQUIREMENTS OF A CLASS "A" SURVEY.
5 – PROPERTY SHOWN HEREON IS SUBJECT TO ALL APPLICABLE EASEMENTS AND RIGHT OF WAY OF RECORDS.
6 – ALL ROADS SHOWN HEREON ARE PRIVATELY MAINTAINED UNLESS OTHERWISE NOTED.
7 – PROPERTY SURVEYED IS NOT IN A FLOOD HAZARD AREA.
8 – THERE IS NO RECOVERABLE HORIZONTAL CONTROL WITHIN 2000'.
9 – NORTH IS PLAT NORTH AS PER PLAT CABINET "C", SLOT 1801
10 – THE PROPERTY SHOWN HEREON IS SUBJECT TO THE RULES, REGULATIONS, ORDINANCES AND/OR JURISDICTIONS OF LOCAL, STATE AND/OR FEDERAL AGENCIES, IF ANY. THE REQUIREMENTS OF SAID RULES, REGULATIONS, ORDINANCES AND/OR THE LIMITS OF SAID JURISDICTIONS ARE NOT SHOWN HEREON, UNLESS STATED OTHERWISE.
11 – THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE SEARCH. EASEMENTS OR OTHER MATTERS AFFECTING THE USE OF THIS PROPERTY NOT SHOWN HEREON, MAY EXIST IN THE PUBLIC RECORDS OF THIS COUNTY. THIS SURVEY REFLECTS ONLY WHAT WAS OBSERVED ON THE GROUND, AND DOES NOT DEPICT UNUSED EASEMENTS, UNDERGROUND UTILITIES, OR OTHER SUBSURFACE INSTALLATIONS WHICH MAY EXIST.



CERTIFICATE OF "TOWN OF WAYNESVILLE"

"I HEREBY CERTIFY THAT THE PLAT WAS REVIEWED AND APPROVED BY THE TOWN OF WAYNESVILLE PLANNING & ZONING FOR RECORDING IN THE OFFICE OF THE REGISTER OF DEEDS OF HAYWOOD COUNTY.

Paul Benson 6/16/06
TOWN OF WAYNESVILLE – PLANNING DIRECTOR DATE

CERTIFICATE OF REGISTER OF DEEDS

STATE OF NORTH CAROLINA, COUNTY OF HAYWOOD

PRESENTED FOR REGISTRATION AND RECORDED IN THIS OFFICE IN PLAT CABINET C, SLOT 4500 AT 3:41 O'CLOCK P M.
THIS THE 16th DAY OF June, 2006

REGISTER OF DEEDS
Haywood County--Register of Deeds
Amy B. Murray, Register of Deeds
BY: Inst# 644632 Book CAB C Page 4500 ASSISTANT DEPUTY
1 Pgs: 1 06/16/2006 03:41:13pm

CERTIFICATE OF REVIEW OFFICER

STATE OF NORTH CAROLINA, COUNTY OF HAYWOOD

I, Peggy Medford REVIEW OFFICER OF HAYWOOD COUNTY CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING

REVIEW OFFICER
DATE: 6/16/06
BY: S. Inman

CERTIFICATE OF OWNERSHIP AND DEDICATION

I (WE) HEREBY CERTIFY THAT I AM (WE ARE) THE OWNER(S) OF THE PROPERTY LOCATED WITHIN THE SUBDIVISION-REGULATION JURISDICTION OF HAYWOOD COUNTY AS SHOWN AND DESCRIBED HEREON, AND THAT I (WE) HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH MY (OUR) FREE CONSENT, AND DEDICATE ALL ROADS AND OTHER SITES AND EASEMENTS TO PUBLIC OR PRIVATE USE AS NOTED IN THE DISCLOSURE OF PRIVATE ROADWAYS, WHERE APPLICABLE.

6-16-2006
DATE OWNER(S)

THIS PLAT CREATES A SUBDIVISION OF LAND WITHIN THE TOWN OF WAYNESVILLE WHICH HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.

I, CLIFFORD G. SECHSER CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN REFERENCED DOCUMENTS; THAT THE RATIO OF PRECISION AS CALCULATED IS 1: 10,000 , THAT THE PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY HAND AND SEAL THIS 30th DAY OF MAY, 2006.

PROFESSIONAL LAND SURVEYOR
REGISTRATION NUMBER L-3952

NORTH CAROLINA PROFESSIONAL SEAL L-3952 LAND SURVEYOR CLIFFORD G. SECHSER

PLAT PREPARED FOR:
HAZELWOOD INVESTMENT PROPERTIES, INC.
OWNERS / DEVELOPERS
WAYNESVILLE TOWNSHIP, HAYWOOD COUNTY, NC

SECHSER-PRECISION SURVEYING & MAPPING, PLLC
CLIFFORD G. SECHSER, P.L.S. L-3952
134 MILLER STREET, WAYNESVILLE, NORTH CAROLINA 28786
PHONE (828) 456-3952

PIN NUMBER 8605-72-8794
DATE 05-30-06
SCALE 1" = 50'
REVISIONS: 06-08-06 ADDED "T" TYPE TURNAROUND

C/4500

BUNNELL LAMMONS ENGINEERING

June 4, 2021

Attention: Mr. Preston Gregg, P.E., PMP,
Town of Waynesville,
129 Legion Drive,
Waynesville, North Carolina 28786

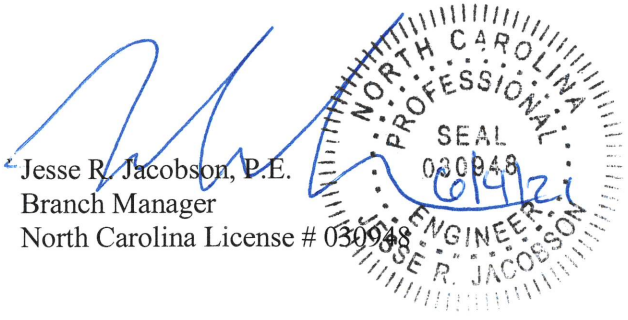
Subject: **Geotechnical Exploration Addendum**
Waynesville Fire Station
Waynesville, North Carolina
BLE Project No: J20-14542-02

Dear Mr. Gregg:

Bunnell-Lammons Engineering, Incorporated (BLE) is pleased to present this letter addendum to our geotechnical report for the proposed Waynesville Fire Station located in Waynesville, North Carolina. Initial work and recommendations were outlined in BLE Report J20-14542-02 dated March 3, 2020. Since that time, additional environmental considerations have come to light during a Phase II study performed by BLE. Poor fill materials were encountered during the geotechnical exploration and an economic remediation solution at that time appeared to consist of undercut and replacement. However, with the potential environmental stipulations and costs, it now appears more appropriate to support the structure with aggregate piers. In general, aggregate piers will improve the existing fill soil so that a spread footing foundation can be utilized, without producing significant spoils. Based on the boring data and in anticipation of ground improvement ultimately designed by a Specialty Contractor, an allowable bearing capacity of up to 4,000 psf can be used for design.

Sincerely,

BUNNELL LAMMONS ENGINEERING INC.
Firm Registration #: C-1538



Jesse R. Jacobson, P.E.
Branch Manager
North Carolina License # 030948

6004 Ponders Court, Greenville, SC 29615 864.288.1265 864.288.4430 info@blecorp.com
BLECORP.COM

Report of Analysis

Bunnell-Lammons Engineering, Inc.
6004 Ponders Court
Greenville, SC 29615
Attention: Dan Matz

Project Name: Waynesville Fire Station

Project Number: J21-14542-003

Lot Number:**WE10034**

Date Completed:05/25/2021

05/26/2021 2:17 PM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Appendix C

Laboratory Analytical Results

BUNNELL LAMMONS ENGINEERING

Field Data Information Sheet for Ground Water Sampling

Page 1 of 1

Date: 05/07/21
Field Personnel: B. Davis
General weather Conditions: Clear
Ambient Air Temperature (°C): 15

Facility Name: 563 Hazelwood Ave. Site ID #: Not Applicable

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no:	324976	serial no	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
		Standard	84

Chain of Custody

B. Davis	5-10-21 / 0856	Pace	5-10-21 / 0856
Relinquished by	Date/Time	Received by	Date/Time

Well # GW-5

Well Diameter (D) 1 inch of 9.00 feet(ft) BGS

*Free Product Thickness	NA	ft
Total Wel Depth (TWD)	9.00	ft BTOC
Depth to Groundwater (DGW)	4.51	ft BTOC

Total Volume of Water Purged Before Sampling: 0.6 gals
*If free product is present over 1/8 inch, sampling will not be required

	Initial	1st	2nd	3rd	4th	5th	6th	7th	8th	Post
Volume Purged (gallons)	--	0.2	0.4	0.6						
Time (military)	1030	1035	1040	1045						
pH (s.u)	6.45	6.61	6.45	6.40						
Specific Conductivity (us)	468.4	486.9	481.9	472.4						
Water Temperature (°C)	15.5	15.7	15.8	15.7						
Turbidity*	3	3	1	1						

*Turbidity subjective - 3-Turbid, 2- Slightly Turbid, 1-Clear

Remarks: Well sampled on 5-7-21 at 1050.

BUNNELL LAMMONS ENGINEERING

Field Data Information Sheet for Ground Water Sampling

Page 1 of 1

Date	05/07/21
Field Personnel	B. Davis
General weather Conditions	Clear
Ambient Air Temperature (°C)	15
Facility Name	563 Hazelwood Ave
Site ID #	Not Applicable

Quality Assurance

pH Sensor:	Oakton 35630-62	**Conductivity Sensor:**	35630-32
serial no	324976	serial no	324976
pH = 4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
		Standard	84

Chain of Custody

B. Davis	5-10-21 / 0856	Pace	5-10-21 / 0856
Relinquished by	Date/Time	Received by	Date/Time

Well #	GW-4
Well Diameter (D)	1 inch of 9.50 feet(ft) BGS
*Free Product Thickness	NA ft
Total Well Depth (TWD)	9.50 ft BTOC
Depth to Groundwater (DGW)	5.71 ft BTOC

Total Volume of Water Purged Before Sampling 0.6 gals

*If free product is present over 1/8 inch, sampling will not be required

	Initial	1st	2nd	3rd	4th	5th	6th	7th	8th	Post
Volume Purged (gallons)	--	0.2	0.4	0.6						
Time (military)	1205	1210	1215	1220						
pH (s.u)	7.38	6.92	7.70	7.69						
Specific Conductivity (us)	535.2	543.0	537.6	541.5						
Water Temperature (°C)	15.2	15.2	15.1	15.1						
Turbidity*	3	2	1	1						

*Turbidity subjective - 3-Turbid, 2- Slighlly Turbid, 1-Clear

Remarks: Well sampled on 5-7-21 at 1220.

BUNNELL LAMMONS ENGINEERING

Field Data Information Sheet for Ground Water Sampling

Page 1 of 1

Date 05/07/21
Field Personnel B. Davis
General weather Conditions Clear
Ambient Air Temperature (°C) 15

Facility Name: 563 Hazelwood Ave. Site ID # Not Applicable

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no.	324976	serial no	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
		Standard	84

Chain of Custody

B. Davis	5-10-21 / 0856	Pace	5-10-21 / 0856
Relinquished by	Date/Time	Received by	Date/Time

Well # GW-3

Well Diameter (D) 1 inch of 10.00 feet(ft) BGS

*Free Product Thickness NA ft
Total Well Depth (TWD) 10.00 ft BTOC
Depth to Groundwater (DGW) 5.87 ft BTOC

Total Volume of Water Purged Before Sampling 0.6 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st	2nd	3rd	4th	5th	6th	7th	8th	Post
Volume Purged (gallons)	--	0.2	0.4	0.6						
Time (military)	1115	1120	1125	1130						
pH (s.u)	7.16	6.68	6.72	6.75						
Specific Conductivity (us)	501.5	529.5	524.0	528.7						
Water Temperature (°C)	15.3	15.5	15.5	15.5						
Turbidity*	3	2	1	1						

*Turbidity subjective - 3-Turbid, 2- Slightly Turbid, 1-Clear

Remarks Well sampled on 5-7-21 at 1130.

BUNNELL LAMMONS ENGINEERING

Field Data Information Sheet for Ground Water Sampling

Page 1 of 1

Date: 05/07/21
Field Personnel: B. Davis
General weather Conditions: Clear
Ambient Air Temperature (°C): 15

Facility Name: 563 Hazelwood Ave. Site ID #: Not Applicable

Well #: GW-2
Well Diameter (D): 1 inch of 11.00 feet(ft) BGS

*Free Product Thickness: NA ft
Total Well Depth (TWD): 11.00 ft BTOC
Depth to Groundwater (DGW): 6.40 ft BTOC

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no	324976	serial no	324976
pH = 4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
		Standard	84

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
B. Davis	5-10-21 / 0856	Pace	5-10-21 / 0856

Total Volume of Water Purged Before Sampling: 0.6 gals
*If free product is present over 1/8 inch, sampling will not be required.

	Initial	1st	2nd	3rd	4th	5th	6th	7th	8th	Post
Volume Purged (gallons)	--	0.2	0.4	0.6						
Time (military)	945	950	0955	1000						
pH (s.u)	6.84	6.47	6.65	6.70						
Specific Conductivity (us)	583.7	588.1	584.5	580.1						
Water Temperature (°C)	16.0	15.9	15.9	16.0						
Turbidity*	3	2	2	2						

*Turbidity subjective - 3-Turbid, 2- Slightly Turbid, 1-Clear

Remarks: Well sampled on 5-7-21 at 1000.

BUNNELL LAMMONS ENGINEERING

Field Data Information Sheet for Ground Water Sampling

Page 1 of 1

Date 05/07/21
Field Personnel B. Davis
General weather Conditions Clear
Ambient Air Temperature (°C) 15

Facility Name 563 Hazelwood Ave Site ID # Not Applicable

Well # GW-1
Well Diameter (D) 1 inch of 10.00 feet(ft) BGS

*Free Product Thickness NA ft
Total Well Depth (TWD) 10.00 ft BTOC
Depth to Groundwater (DGW) 8.32 ft BTOC

Quality Assurance

pH Sensor:	Oakton 35630-62	Conductivity Sensor:	35630-32
serial no	324976	serial no	324976
pH =4.0	4.0	Standard	15,000
pH = 7.0	7.0	Standard	1,413
pH = 10.0	10.0	Standard	447
		Standard	84

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time
B. Davis	5-10-21 / 0856	Pace	5-10-21 / 0856

Total Volume of Water Purged Before Sampling 0.6 gals
*If free product is present over 1/8 inch, sampling will not be required

	Initial	1st	2nd	3rd	4th	5th	6th	7th	8th	Post
Volume Purged (gallons)	--	0.2	0.4	0.6						
Time (military)	1240	1245	1250	1300						
pH (s.u)	6.68	7.20	7.47	7.45						
Specific Conductivity (us)	307.0	289.6	284.4	290.7						
Water Temperature (°C)	15.0	15.1	15.0	15.0						
Turbidity*	3	2	1	1						

*Turbidity subjective - 3-Turbid, 2- Slightly Turbid, 1-Clear

Remarks: Well sampled on 5-7-21 at 1300.

Appendix B

Field Data Information Sheets for Groundwater Sampling

KEY TO SOIL CLASSIFICATIONS AND CONSISTENCY DESCRIPTIONS

BUNNELL-LAMMONS ENGINEERING, INC.
GREENVILLE, SOUTH CAROLINA

Penetration Resistance* Blows per Foot	Relative Density
SANDS	
0 to 4	Very Loose
5 to 10	Loose
11 to 20	Firm
21 to 30	Very Firm
31 to 50	Dense
over 50	Very Dense

Penetration Resistance* Blows per Foot	Consistency
SILTS and CLAYS	
0 to 2	Very Soft
3 to 4	Soft
5 to 8	Firm
9 to 15	Stiff
16 to 30	Very Stiff
31 to 60	Hard
over 60	Very Hard

*ASTM D 1586

Particle Size Identification

Boulder: Greater than 300 mm
Cobble: 75 to 300 mm
Gravel:
Coarse - 19 to 75 mm
Fine - 4.75 to 19 mm
Sand:
Coarse - 2 to 4.75 mm
Medium - 0.425 to 2 mm
Fine - 0.075 to 0.425 mm
Silt & Clay: Less than 0.075 mm

KEY TO DRILLING SYMBOLS

Grab Sample

Split Spoon Sample

Undisturbed Sample

NR = No reaction to HCL

NA = Not applicable

NS = No sample

Groundwater Table at Time of Drilling

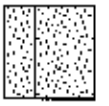
Groundwater Table 24 Hours after Completion of Drilling

KEY TO SOIL CLASSIFICATIONS


Well-graded Gravel
GW

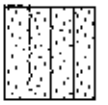

Low Plasticity Clay
CL

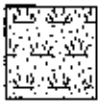

Clayey Silt
MH


Silty Sand
SM


Poorly-graded Gravel
GP

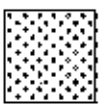

Sandy Clay
CLS

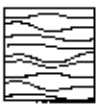

Sandy Silt
MLS


Topsoil
TOPSOIL

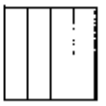

Partially Weathered Rock
BLDRCBBL


Silty Clay
CL-ML

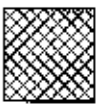

Sand
SW

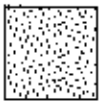

Liquid Sludge
SLUDGE


High Plasticity Clay
CH

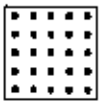

Silt
ML


Clayey Sand
SC


Fill
FILL


Poorly Graded Sand
SP


Bedrock
BEDROCK


Waste
WOOD

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GEOPROBE BORING NO. B-5/GW-5

PROJECT: Proposed Waynesville Fire Station
PROJECT NO.: J21-14542-03
CLIENT: Town of Waynesville
START: 5-7-21 END: 5-7-21
LOCATION: Waynesville, North Carolina
ELEVATION:
DRILLER: JG Drilling, J. Grant
LOGGED BY: B. Davis
DRILLING METHOD: Track mount Geoprobe
DEPTH TO - WATER> INITIAL: ▽ 4.51 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	SAMPLES	PID (ppm) READING	MONITOR WELL INSTALLATION DETAILS
	TOPSOIL			0.0	
	Light brown SILT			0.1	
				0.3	
				0.3	
▽				0.4	
5				0.2	
				wet	1-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 3.8 to 8.8 feet. 0.2-foot end cap
10	Boring terminated at 10.0 feet.				
	Groundwater encountered at 4.51 feet at time of drilling.				
	Soil sample B-5(2) collected from 2-feet below ground surface.				
	Groundwater sample GW-5 collected from 3.8-8.8-feet below ground surface.				
15					

FOR WELL ONLY PID 14542-03.GPJ 5/3/21

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GEOPROBE BORING NO. B-4/GW-4

PROJECT: Proposed Waynesville Fire Station
PROJECT NO.: J21-14542-03
CLIENT: Town of Waynesville
START: 5-7-21 END: 5-7-21
LOCATION: Waynesville, North Carolina
ELEVATION:
DRILLER: JG Drilling, J. Grant
LOGGED BY: B. Davis
DRILLING METHOD: Track mount Geoprobe
DEPTH TO - WATER> INITIAL: ∇ 5.71 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	SAMPLES	PID (ppm) READING	MONITOR WELL INSTALLATION DETAILS
	TOPSOIL			0.0	
	Light brown SILT			0.1	
				0.0	
				0.0	
	TAR material between 4 and 6 feet			0.3	
5	∇			0.4	
	Light brown SILT			0.4	1-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 4.3 to 9.3 feet. 0.2-foot end cap
				0.3	
	TAR material between 8 and 9 feet			0.1	
	Light brown, moist SILT			0.1	
10	Boring terminated at 10.0 feet.				
	Groundwater encountered at 5.71 feet at time of drilling.				
	Soil sample B-4(5) collected from 5-feet below ground surface.				
	Groundwater sample GW-4 collected from 4.3-9.3-feet below ground surface.				
15					

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GEOPROBE BORING NO. B-3/GW-3

PROJECT: Proposed Waynesville Fire Station — PROJECT NO.: J21-14642-03

CLIENT: Town of Waynesville — START: 5-7-21 END: 5-7-21

LOCATION: Waynesville, North Carolina — ELEVATION:

DRILLER: JG Drilling, J. Grant — LOGGED BY: B. Davis

DRILLING METHOD: Track mount Geoprobe

DEPTH TO - WATER> INITIAL: ▽ 5.87 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	SAMPLES	PID (ppm) READING	MONITOR WELL INSTALLATION DETAILS
	TOPSOIL			0.0	
	Light brown SILT			0.1	
				0.1	
				0.1	
				0.0	
5				0.1	
	moist			0.0	
				0.0	1-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 4.8 to 9.8 feet. 0.2-foot end cap
				0.0	
10	Boring terminated at 10.0 feet.			0.1	
	Groundwater encountered at 5.87 feet at time of drilling.				
	Soil sample B-3(2) collected from 2-feet below ground surface.				
	Groundwater sample GW-3 collected from 4.8-9.8-feet below ground surface.				
15					

ENV WELL_ONLY_PID 14642-03.GPJ 6/3/21

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GEOPROBE BORING NO. B-2/GW-2

PROJECT: Proposed Waynesville Fire Station — PROJECT NO.: J21-14542-03

CLIENT: Town of Waynesville — START: 5-7-21 END: 5-7-21

LOCATION: Waynesville, North Carolina — ELEVATION:

DRILLER: JG Drilling, J. Grant — LOGGED BY: B. Davis

DRILLING METHOD: Track mount Geoprobe

DEPTH TO - WATER> INITIAL: ▽ 6.40 AFTER 24 HOURS: ▼ CAVING>

ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE	SAMPLES	PID (ppm) READING	MONITOR WELL INSTALLATION DETAILS
	TOPSOIL			0.2	
	Light brown SILT			0.2	
				0.3	
				0.4	
				0.1	
5				0.8	
▽				0.8	
				0.3	1-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 5.8 to 10.8 feet, 0.2-foot end cap
10				0.3	
				0.1	
	Boring terminated at 13.0 feet.				
	Groundwater encountered at 6.40 feet at time of drilling.				
15	Soil sample B-2(3.5) collected from 3.5-feet below ground surface.				
	Groundwater sample GW-2 collected from 4.8-9.8-feet below ground surface.				

ENV_WELL_ONLY_PID 14542-03.GPJ 6/3/21

BLE INC.

BUNNELL-LAMMONS ENGINEERING, INC.

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

GEOPROBE BORING NO. B-1/GW-1

PROJECT: Proposed Waynesville Fire Station
PROJECT NO.: J21-14642-03
CLIENT: Town of Waynesville
START: 5-7-21 END: 5-7-21
LOCATION: Waynesville, North Carolina
ELEVATION:
DRILLER: JG Drilling, J. Grant
LOGGED BY: B. Davis
DRILLING METHOD: Track mount Geoprobe
DEPTH TO - WATER> INITIAL: ▽ 8.32 AFTER 24 HOURS: ▼ CAVING> ▨

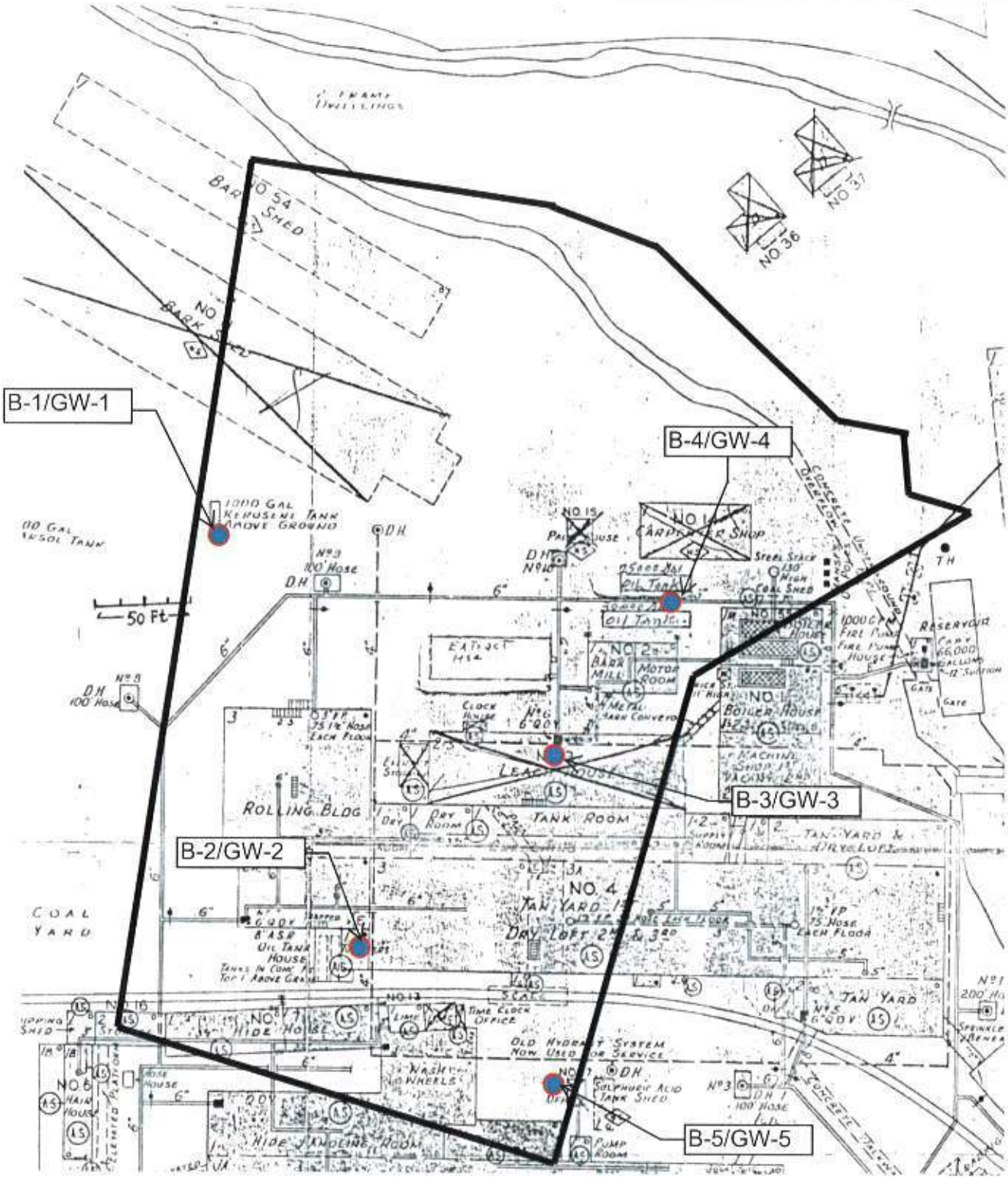
ELEVATION/ DEPTH (FT)	DESCRIPTION	SOIL TYPE SAMPLES	PID (ppm) READING	MONITOR WELL INSTALLATION DETAILS
	TOPSOIL		0.5	
	Light brown SILT		0.3	
			0.3	
			0.1	
			0.1	
5			0.1	
			0.1	1-inch diameter, 0.010-inch slotted Schedule 40 PVC well screen, 4.8 to 9.8 feet, 0.2-foot end cap
			0.1	
			0.1	
			0.1	
10	Boring terminated at 10.0 feet.			
	Groundwater encountered at 8.32 feet at time of drilling.			
	Soil sample B-1(2) collected from 2-feet below ground surface.			
	Groundwater sample GW-1 collected from 4.8-9.8-feet below ground surface.			
15				

ENV WELL ONLY PID 14642-03.GPJ 6/3/21

Appendix A

Soil Boring Logs

APPENDICES



Not to scale

DRAWN: BD	DATE: 6-5-12	BUNNELL LAMMONS ENGINEERING 6004 Ponders Court, Greenville, SC 29615 Phone: (864) 288-1265	**Boring Location Plan & Historical Features** 563 Hazelwood Ave Waynesville, North Carolina	FIGURE 3
CHECKED: DRM	JOB No: J21-14542-03			
APPROVED: DRM				

LEGEND

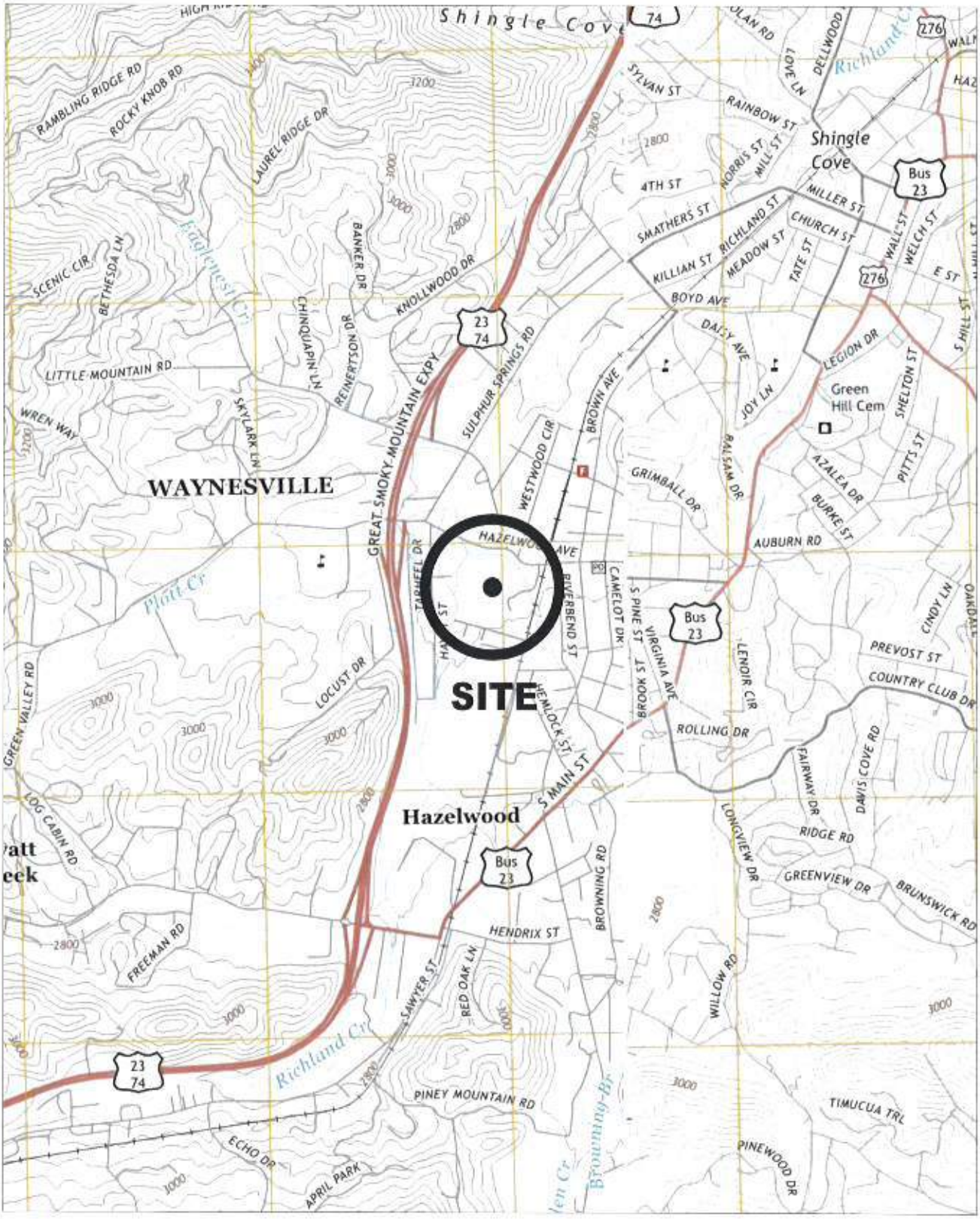
● APPROXIMATE LOCATION OF SOIL/GROUNDWATER SAMPLE

150 75 0 150 300

APPROXIMATE SCALE IN FEET

REFERENCE:
GOOGLE EARTH IMAGE DATED 11-26-2017.

DRAWN: ACE	DATE: 06-03-21	BUNNELL LAMMONS ENGINEERING 6004 Ponders Court, Greenville, SC 29615 Phone: (864) 288-1265 Fax: (864) 288-4430	BORING LOCATION PLAN PROPOSED WAYNESVILLE FIRE STATION HAZELWOOD AVENUE WAYNESVILLE, NORTH CAROLINA
CHECKED: BPD	CAD: WAYNESVILLEFS-BLP		
APPROVED: DRM	JOB NO: J21-14542-03		FIGURE 2



2000 1000 0 2000 4000

APPROXIMATE SCALE IN FEET

REFERENCE:
USGS TOPOGRAPHIC MAP, 7.5 MINUTE SERIES,
HAZELWOOD AND WAYNESVILLE, N.C. QUADRANGLES, 2016 AND 2013.

DRAWN: ACE	DATE: 06-03-21	BUNNELL LAMMONS ENGINEERING 6004 Ponders Court, Greenville, SC 29615 Phone: (864) 288-1265 Fax: (864) 288-4430	SITE LOCATION MAP PROPOSED WAYNESVILLE FIRE STATION HAZELWOOD AVENUE WAYNESVILLE, NORTH CAROLINA
CHECKED: BPD	CAD: WAYNESVILLEFS-SLM		
APPROVED: DRM	JOB NO: J21-14542-03		FIGURE 1

Figures

TABLE 6 CON'T

Groundwater Analytical Results
Dissolved Metals - EPA Methods 6020B, 7471B, & 7199
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Dissolved Magnesium	Dissolved Manganese	Dissolved Nickel	Dissolved Potassium	Dissolved Sodium	Dissolved Vanadium
NCDEQ 2L Standard		NE	50	100	NE	NE	NE
Sample ID	**Date Sampled**						
GW-1	05/07/21	**6,000**	**150**	**2.0 J**	**5,900**	3,400	<2.5
GW-2	05/07/21	**24,000**	**1,100**	**1.8 J**	**4,400**	5,700	<2.5
GW-3	05/07/21	**14,000**	**160**	**13**	**7,900**	4,200	**6.9**
GW-4	05/07/21	**9,100**	**940**	**1.3 J**	**7,500**	8,900	<2.5
GW-5	05/07/21	**15,000**	**430**	**1.6 J**	**8,900**	7,400	<2.5

NOTES:
NCDEQ 2L Standard - North Carolina Department of Environmental Quality, Groundwater Quality Standard 15A NCAC 02L 0202, March 2018
Detections are in ug/l - micrograms per liter
Yellow shaded cells indicate detections above NCDEQ 2L Standard
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit.

Prepared By GD
Checked By DM

TABLE 6

Groundwater Analytical Results
Dissolved Metals - EPA Methods 6020B, 7471B, & 7199
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Dissolved Aluminum	Dissolved Antimony	Dissolved Barium	Dissolved Calcium	Dissolved Cobalt	Dissolved Copper	Dissolved Iron
NCDEQ 2L Standard		NE	NE	700	NE	NE	1,000	300
Sample ID	Date Sampled							
GW-1	05/07/21	<10	<0.50	**73**	**50,000**	<1.3	<1.3	**13 J**
GW-2	05/07/21	**170**	**1.1 J**	**49**	**87,000**	**3.3 J**	<1.3	**1,600**
GW-3	05/07/21	**51**	**0.80 J**	**120**	**120,000**	<1.3	**1.6 J**	**110**
GW-4	05/07/21	**13 J**	**2.1**	**210**	**120,000**	<1.3	<1.3	**29 J**
GW-5	05/07/21	**81**	**0.56 J**	**26**	**80,000**	<1.3	<1.3	**2,300**

NOTES
NCDEQ 2L Standard - North Carolina Department of Environmental Quality, Groundwater Quality Standard 15A NCAC 02L.0202, March 2018
Detections are in µg/l - micrograms per liter
Yellow shaded cells indicate detections above NCDEQ 2L Standard
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By: GD
Checked By: DM

TABLE 5

Groundwater Analytical Results
Semi-Volatile Organic Compounds (VOCs) - EPA Method 8270E
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		2-Methylnaphthalene	Acenaphthene	bis(2-Ethylhexyl) phthalate	Di-n-butyl phthalate	Diethylphthalate	Naphthalene
NCDEQ 2L Standard		30	80	3	700	6,000	6
Sample ID	Date Sampled						
GW-1	05/07/21	<0.040	<0.040	**0.72 J**	<0.42	**0.35 J**	<0.040
GW-2	05/07/21	<0.040	<0.040	**1.4 J**	<0.42	**0.41 J**	<0.040
GW-3	05/07/21	<0.040	<0.040	**0.70 J**	<0.42	<0.19	<0.040
GW-4	05/07/21	**0.043 J**	<0.040	**0.63 J**	<0.42	<0.19	**0.051 J**
GW-5	05/07/21	<0.040	**0.045 J**	**0.64 J**	**1.0 J**	**0.43 J**	<0.040

NOTES:
NCDEQ 2L Standard - North Carolina Department of Environmental Quality, Groundwater Quality Standard 15A NCAC 02L.0202, March 2018
Detections are in µg/l - micrograms per liter
Yellow shaded cells indicate detections above NC DEQ 2L Standard
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By: GD
Checked By: DM

TABLE 4

Groundwater Analytical Results
Volatile Organic Compounds (VOCs) - EPA Method 8260D
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Carbon Disulfide
NCDEQ 2L Standard		700
Sample ID	Date Sampled	
GW-1	05/07/21	<0.40
GW-2	05/07/21	**0.42 J**
GW-3	05/07/21	<0.40
GW-4	05/07/21	<0.40
GW-5	05/07/21	<0.40

NOTES:
NCDEQ 2L Standard - North Carolina Department of Environmental Quality Groundwater Quality Standard 15A NCAC 02L.0202, March 2018.
Detections are in µg/l - micrograms per liter
Yellow shaded cells indicate detections above NCDEQ 2L Standard
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By: GD
Checked By: DM

TABLE 3 CON'T

Soil Analytical Results
Metals - EPA Methods 6020B, 7471B, & 7199
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Potassium	Selenium	Silver	Sodium	Thallium	Vanadium	Zinc	Mercury
Industrial RSL (µg/kg)		NE	1,200,000	1,200,000	NE	2,300	1,200,000	70,000,000	9,700
Sample ID	Date Sampled								
B-1 (2)	05/07/21	**2,700,000**	**510 J**	<59	<36000	**240**	**63,000**	**54,000**	**28 J**
B-2 (3.5)	05/07/21	**2,300,000**	**790 J**	<67	**76,000 J**	**370**	**64,000**	**94,000**	**22 J**
B-3 (2)	05/07/21	**4,600,000**	**1200 J**	**90 J**	**46,000 J**	**510**	**53,000**	**110,000**	**53 J**
B-4 (5)	05/07/21	**980,000**	**1,500**	<65	**140,000**	**160**	**22,000**	**70,000**	**89 J**
B-5 (2)	05/07/21	**4,600,000**	**670 J**	<63	<38000	**440**	**41,000**	**50,000**	<22

NOTES
PSRG - North Carolina Department of Environmental Quality, Preliminary Soil Remediation Goals (PSRG), January 2021
Detections are in µg/kg - micrograms per kilogram
Blue shaded cells indicate detections above Industrial/Commercial PSRG
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By: GD
Checked By: DM

TABLE 3 CON'T

Soil Analytical Results
Metals - EPA Methods 6020B, 7471B, & 7199
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Cobalt	Copper	Iron	Lead	Magnesium	Manganese	Nickel
Industrial RSL (µg/kg)		70,000	9,300,000	160,000,000	NE	NE	32,000,000	4,700,000
Sample ID	Date Sampled							
B-1 (2)	05/07/21	**11,000**	**26,000**	**41,000,000**	**22,000**	**2,100,000**	**390,000**	**14,000**
B-2 (3.5)	05/07/21	**13,000**	**27,000**	**47,000,000**	**10,000**	**5,200,000**	**320,000**	**21,000**
B-3 (2)	05/07/21	**18,000**	**29,000**	**47,000,000**	**13,000**	**4,300,000**	**1,000,000**	**26,000**
B-4 (5)	05/07/21	**4,900**	**410,000**	**15,000,000**	**55,000**	**1,000,000**	**380,000**	**13,000**
B-5 (2)	05/07/21	**8,400**	**11,000**	**29,000,000**	**12,000**	**2,800,000**	**170,000**	**12,000**

NOTES
PSRG - North Carolina Department of Environmental Quality, Preliminary Soil Remediation Goals (PSRG), January 2021
Detections are in µg/kg - micrograms per kilogram
Blue shaded cells indicate detections above Industrial/Commercial PSRG
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By: GD
Checked By: DM

TABLE 3

Soil Analytical Results
Metals - EPA Methods 6020B, 7471B, & 7199
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium	Chromium
Industrial RSL (µg/kg)		230,000,000	93,000	3,000	47,000,000	470,000	200,000	NE	NE
Sample ID	Date Sampled								
B-1 (2)	05/07/21	**43,000,000**	<200	**1,500**	**160,000**	**370**	**78 J**	**820,000**	**37,000**
B-2 (3.5)	05/07/21	**40,000,000**	<220	**1,600**	**180,000**	**230**	<28	**2,000,000**	**41,000**
B-3 (2)	05/07/21	**34,000,000**	<210	**2,800**	**150,000**	**180**	**58 J**	**230,000**	**30,000**
B-4 (5)	05/07/21	**7,600,000**	**1,600**	**7,500**	**490,000**	**320**	**180**	**18,000,000**	**10,000**
B-5 (2)	05/07/21	**31,000,000**	<210	**1,800**	**120,000**	**410**	<26	**180,000**	**19,000**

NOTES:
PSRG - North Carolina Department of Environmental Quality, Preliminary Soil Remediation Goals (PSRG), January 2021
Detections are in µg/kg - micrograms per kilogram
Blue shaded cells indicate detections above Industrial/Commercial PSRG
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By GD
Checked By DM

TABLE 2 CON'T

Soil Analytical Results
Semi-Volatile Organic Compounds (SVOC's) - EPA Method 8270D
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		Di-n-butyl phthalate	Dibenzofuran	Fluoranthene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Industrial RSL (µg/kg)		16,000,000	210,000	6,000,000	21,000	18,000	NE	4,500,000
Sample ID	**Date Sampled**							
B-1 (2)	05/07/21	<110	<110	**330**	**60 J**	**75**	**190**	**210**
B-2 (3.5)	05/07/21	<58	<58	<4.9	<12	<11	<8.4	<5.8
B-3 (2)	05/07/21	**6.2 J**	<5.6	<0.47	<1.1	**2.0 J**	<0.80	<0.56
B-4 (5)	05/07/21	<120	**310**	**350**	**63**	**980**	**920**	**310**
B-5 (2)	05/07/21	<5.9	<5.9	<0.49	<1.2	<1.1	<0.84	<0.59

NOTES
PSRG - North Carolina Department of Environmental Quality, Preliminary Soil Remediation Goals (PSRG), January 2021
Detections are in µg/kg - micrograms per kilogram
Blue shaded cells indicate detections above Industrial/Commercial PSRG
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit.

Prepared By: GD
Checked By: DM

TABLE 2

Soil Analytical Results
Semi-Volatile Organic Compounds (SVOC's) - EPA Method 8270D
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		2-Methylnaphthalene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i) perylene	Benzo(k) fluoranthene	Chrysene
Industrial RSL (µg/kg)		600,000	45,000,000	21,000	2,100	21,000	NE	210,000	2,100,000
Sample ID	Date Sampled								
B-1 (2)	05/07/21	**100**	**50 J**	**180**	**160**	**180**	**73**	**81**	**140**
B-2 (3.5)	05/07/21	<12	<5.9	<6.9	<7.7	<5.8	<7.6	<5.6	<5.2
B-3 (2)	05/07/21	**2.3 J**	<0.57	<0.66	<0.74	<0.56	<0.73	<0.54	<0.50
B-4 (5)	05/07/21	**1,600**	**89**	**190**	**190**	**280**	**110**	**86**	**260**
B-5 (2)	05/07/21	<1.2	<0.60	<0.69	<0.77	<0.59	<0.76	<0.56	<0.53

NOTES
PSRG - North Carolina Department of Environmental Quality, Preliminary Soil Remediation Goals (PSRG), January 2021
Detections are in µg/kg - micrograms per kilogram
Blue shaded cells indicate detections above Industrial/Commercial PSRG
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By GD
Checked By DM

TABLE 1

Soil Analytical Results
Volatile Organic Compounds (VOCs) - EPA Method 8260D
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, North Carolina
BLE Job Number: J21-14542-03

Chemical of Concern		2-Butanone (MEK)	Acetone	Carbon disulfide	Cyclo-hexane	Methyl-cyclohexane	Toluene	Xylenes (total)
Industrial/Commercial PSRG (ug/kg)		40,000,000	140,000,000	740,000	5,800,000	NE	9,700,000	530,000
Sample ID	Date Sampled							
B-1 (2)	05/07/21	<4.1	<8.2	<2.0	<2.0	<2.0	<2.0	<4.1
B-2 (3.5)	05/07/21	**12 J**	**89**	**5.6 J**	<2.5	<2.5	<2.5	<4.9
B-3 (2)	05/07/21	<4.1	<8.1	<2.0	<2.0	<2.0	<2.0	<4.1
B-4 (5)	05/07/21	<6.8	<14	**9.1**	**5.9 J**	**14**	**9.7**	**14 J**
B-5 (2)	05/07/21	<3.9	<7.8	<1.9	<1.9	<1.9	<1.9	<3.9

NOTES:
PSRG - North Carolina Department of Environmental Quality, Preliminary Soil Remediation Goals (PSRG), January 2021
Detections are in µg/kg - micrograms per kilogram
Blue-shaded cells indicate detections above Industrial/Commercial PSRG
Bold data indicate detections
NE - RSL or SSL Not Established
J - results that are greater than the method detection limit and less than the reporting limit

Prepared By: GD
Checked By: DM

Tables

5.0 QUALIFICATION OF REPORT

This report is for the use and benefit of, and may be relied upon by the Town of Waynesville or any of their affiliates pursuant to previously agreed upon terms and conditions. Reliance on this document by any party other than the Town of Waynesville may occur only upon the express written consent of the Town of Waynesville and upon the relying third party's execution of a written Secondary Client Agreement between the relying third party and BLE. The services provided have been performed for the Town of Waynesville and this report may or may not be suitable for any and/or all of the purposes of the relying third party. Use of this report for purposes beyond those reasonably intended by the Town of Waynesville and BLE will be at the sole risk of the user. Any third party agrees by accepting this report that any use or reliance on this report shall be limited by the exceptions and limitations placed on the scope, nature and type of BLE's services as stated in BLE's proposal and/or this report, and with the acknowledgment that actual site conditions may change with time, and that hidden conditions may exist at the site that were not discoverable within the authorized scope of the assessment. BLE makes no other representation to any third party except that it has used the degree of care and skill ordinarily exercised by environmental consultants in the preparation of the report and in the assembling of data and information related thereto. No other warranties are made to any third party, either expressed or implied.

The activities and evaluative approaches used in this assessment are consistent with those normally employed in projects of this type. Our evaluation of site conditions has been based on our understanding of the site and project information, and the data obtained in our exploration.

Regardless of the thoroughness of an environmental site assessment, there is always the possibility that conditions between borings will be different from that at the specific boring location due to the variability of subsurface conditions. Therefore, it was not possible to identify all conceivable forms of contamination at this site. The primary objective was to perform sufficient work to assess specific areas of concern. It was not the purpose of this evaluation to fully define the degree or extent of all forms of contamination.

4.0 CONCLUSIONS

BLE has performed a Limited Phase II ESA on-Site to determine if a REC identified during a Phase I ESA has potentially impacted the environmental quality of the Site. During the Phase II ESA, five soil samples and five groundwater samples were collected for laboratory analysis.

The following provides BLE's conclusions from the limited soil and groundwater sampling:

- Soil samples did not have detections of VOCs or SVOCs above their respective NCDEQ Industrial/Commercial PSRGs.
- One soil boring, B-4, had a detection of arsenic above the NCDEQ Industrial/Commercial PSRG. Remaining metal concentrations were below NCDEQ Industrial/Commercial PSRGs.
- Groundwater samples did not have detections of VOCs or SVOCs above their respective NCDEQ 2L Standards.
- Groundwater samples had detections of iron and manganese above their respective 2L Standards; however, the concentrations were below the NCDEQ Gross Contamination Level.

BLE understands the Site is planned for future commercial redevelopment into a fire station. Therefore, BLE offers the following recommendations:

- Soil impacts from arsenic were detected above the NCDEQ Industrial/Commercial PSRG at one boring location from a depth of 5-feet below ground surface. If future redevelopment activities in this area are to disturb sub-surface soils, the disturbed soils should be either be left on-Site and overlain by a parking lot, building pad, or other engineered barrier. If soils from this area are to be transported off-Site, the disturbed soils would need additional environmental characterization to determine the transport and disposal requirements, if any.
- BLE understands groundwater use, either through drinking water wells or irrigation wells, is not planned for the Site, and public water is available at the Site and surrounding area. Given the proposed commercial use of the Site and the availability of public water, it is BLE's opinion the dissolved metal impacts identified on-Site do not warrant additional assessment at this time.
- Should an area of stained or otherwise potentially impacted media (soils and/or groundwater) be discovered during construction activities, work in that area should be stopped, and BLE should be notified in an effort to characterize a potential new waste stream. Analytical samples of the identified media maybe collected to determine if the media represents a new waste stream. The type and frequency of analytical sampling will be determined based on the volume present. Should the media represent a new waste stream, BLE can prepare a plan to manage the media, as necessary.
- Based on the findings of this limited assessment and the details of the October 1998 NCDEQ letter specifically not requiring additional assessment, BLE does not recommend additional assessment on-Site at this time.

3.0 ANALYTICAL RESULTS

Five soil samples and five groundwater samples were collected and analyzed during this Limited Phase II ESA. A copy of the compete laboratory analytical report is included in **Appendix C.**

3.1 Soil Sample Analytical Results

Soil analytical results were compared to the NCDEQ Preliminary Soil Remediation Goals (PSRG), Industrial/Commercial Health Based PSRG, January 2021. The Residential PSRG was not utilized for comparison as BLE understands the Site is planned for redevelopment into a fire station and a permanent residence will not be located on-Site. The Protection of Groundwater PSRG was not utilized for comparison as the Site is located in a developed urban area of Waynesville, North Carolina. Public water is readily available in the area and BLE understands groundwater is not planned for either drinking or irrigation use on the Site.

Seven VOCs and sixteen SVOCs were detected above the laboratory minimum detection limit; however, the concentrations were below applicable Industrial/Commercial PSRGs.

Twenty-three metals were detected above the laboratory minimum detection limit. One metal, arsenic, was detected above the Industrial/Commercial PSRG at boring location B-4 from a depth of 5-feet below ground surface.

3.2 Groundwater Sample Analytical Results

Groundwater analytical results were compared to the NCDEQ Groundwater Quality Standard 15A NCAC 02L.0202, dated March 2018 (2L Standard).

One VOC and six SVOCs were detected above the laboratory minimum detection limit; however, the concentrations were below applicable 2L Standards.

Thirteen metals were detected above the above the laboratory minimum detection limit. Two metals, iron and manganese, were detected above the 2L Standard. Temporary monitoring wells frequently yield analytical groundwater samples with elevated turbidity as the result of excessive silt/sediment in the sample. The elevated turbidity in the groundwater sample can result in metals concentrations that are higher than what is representative of actual groundwater conditions.

Boring ID	Parcel Number	Property Owner	Well Owner
B-1 through B-5	8605-72-5769	Tolar, Glenn M	Tolar, Glenn M

After groundwater sampling, each TMW was abandoned pursuant to NCDEQ Well Construction Standards.

The following table provides information concerning the groundwater samples collected:

Groundwater Sample for Laboratory Analysis				
Boring ID	**Sample ID**	**Total Boring Depth (ft bgs)**	**Screened Interval Depth (ft bgs)**	**Depth to Water (ft bgs)**
B-1	GW-1	10.0	4.8-9.8	8.32
B-2	GW-2	13.0	5.8-10.8	6.40
B-3	GW-3	10.0	4.8-9.8	5.87
B-4	GW-4	10.0	4.3-9.3	5.71
B-5	GW-5	10.0	3.8-8.8	4.51
Notes: ft bgs – feet below ground surface				

A. The GeoProbe Macrocore sampling system was decontaminated between boring locations with a water and Alconox® detergent solution.

BLE field personnel collected a soil sample from each boring for submittal to an analytical laboratory. The soil boring and corresponding depth interval collected for analytical sampling was selected based on field screening results, Site observations, and visual observation of the soil cores.

In the field, soil samples were placed into laboratory prepared sample containers, marked with identifying numbers, and placed in a cooler where they were maintained at approximately 4° Celsius using ice. The samples were then transported to a North Carolina certified laboratory, Pace Analytical Services (Pace) in West Columbia, South Carolina, for analysis.

The following table provides information concerning the soil samples collected:

Soil Sample for Laboratory Analysis			
Boring ID	**Sample ID**	**Sample Depth (feet below ground surface)**	**PID Reading (parts per million)**
B-1	B-1 (2)	2.0	0.3
B-2	B-2 (3.5)	3.5	0.4
B-3	B-3 (2)	2.0	0.1
B-4	B-4 (5)	5.0	0.3
B-5	B-5 (2)	2.0	0.1

2.3 Groundwater Assessment

After soil sampling activities, a temporary groundwater monitoring well (TMW) was installed at each boring location for groundwater sampling. Each TMW was constructed of 1-inch diameter PVC casing with flush-threaded joints. The bottom 5-foot section of each TMW was a manufactured well screen with machined slots.

Groundwater was extracted from each TMW with unused polypropylene tubing and a peristaltic pump. Prior to sampling, each well was purged to allow for the collection of a sample representative of current aquifer conditions and to provide adequate flow of groundwater into the well screen. Purging was considered complete when field parameters stabilized. Refer to **Appendix B** for Groundwater Sampling Logs.

In the field, groundwater samples were placed into laboratory prepared sample containers, marked with identifying numbers, and placed in a cooler where they were maintained at approximately 4° Celsius using wet ice. The samples were then transported to Pace for analysis.

According to NCDEQ Well Construction Standards, a TMW is considered a monitoring well. Since each boring advanced was converted into a TMW, five monitoring wells were installed during this assessment. The following table documents the boring IDs, parcel number for which the borings were advanced, property owner, and well owner.

2.0 SCOPE OF WORK COMPLETED

At the request of the Town of Waynesville, BLE advanced five borings for the collection of soil and groundwater samples.

On May 18, 2021, BLE personnel mobilized to the Site and directed the advancement of five borings (B-1 through B-5) to assess Site conditions (**Figure 2**). Borings were advanced by a North Carolina licensed driller from JG Drilling of Easley, South Carolina (Jeff Grant) while being supervised by a BLE geologist. Borings were advanced with the use of a Track Mounted GeoProbe®. Boring locations were selected based historical Site features. The following table documents the boring ID's, general boring locations, and samples collected for analysis.

Boring ID	General Location	Soil Sample	Groundwater Sample
B-1	Approximate location of a former 1,000-gallon kerosene aboveground storage tank	Yes B-1 (2)	Yes GW-1
B-2	Approximate location of the former oil tank house	Yes B-2 (3.5)	Yes GW-2
B-3	Approximate location of a former leach house and in a presumed cross-gradient location of the former boiler house and machine shop	Yes B-3 (2)	Yes GW-3
B-4	Approximate location of a former 25,000-gallon oil tank and 50,000-gallon gallon oil tank and in a presumed downgradient location of the former boiler house and machine shop	Yes B-4 (5)	Yes GW-4
B-5	Approximate location of former sulfuric acid shed	Yes B-5 (2)	Yes GW-5

The soil and groundwater samples were analyzed for the following contaminants of concern:

a. VOCs via Environmental Protection Agency (EPA) Method 8260
b. SVOCs via EPA Method 8270
c. Target Analyte List (TAL) Metals via EPA Method 6010 and Mercury via EPA Method 7471
    - Please note, the groundwater samples analyzed for metals were be filtered by the laboratory and were analyzed as dissolved metals.

2.1 Utility Mark-out

Prior to field activities, BLE contacted North Carolina 811 and submitted a ticket to locate public utilities at the proposed boring locations prior to field activities. North Carolina 811 applied spray-paint in the areas where known buried public utilities were located at the Site.

2.2 Soil Assessment

Soil samples were collected utilizing a GeoProbe® Marcocore sampler from each boring location. BLE screened soils from each boring in the field for the presence of VOCs using a Mini Rae 3000® photoionization detector (PID). Field screening values are recorded on the soil borings logs in **Appendix**

BLE understands the Site is planned for redevelopment into a fire station associated with the Town of Waynesville. Due to the above listed REC, BLE performed the following scope of services to further evaluate the environmental quality of the Site.

1.0 PROJECT INFORMATION

The following project information was obtained through a *Phase I Environmental Site Assessment, 563 Hazelwood Avenue*, prepared by BLE, dated March 16, 2020.

On-Site Findings

The Site consists of one parcel of land, identified by the Haywood County Tax Assessor as Tax Map Number 8605-72-5769, totaling approximately 3.5-acres. The Site is located approximately 1.5-miles southwest of downtown Waynesville, North Carolina and is located within the Waynesville city limits.

At the time of the February 24, 2020, Phase I ESA Site reconnaissance, the Site was a vacant field with areas of overgrown vegetation.

A portion of the Site formerly operated as AC Lawrence Leather Company, a tannery. Lawrence Leather was originally developed in 1895 and operated under various tenants and owners until circa 1986. According to a *Levels I and II Site Evaluation, AC Lawrence Leather Company*, prepared by Dames & Moore, dated August 10, 1989, the tanning process at the facility mainly involved using vegetable tanning agents (i.e., bark of mimosa and chestnut extract) with occasional re-tanning using chrome salts. The final product was a stiff leather used for shoe soles and industrial belts. After 1986, stretching and oiling of purchased, stiff, pre-tanned leather continued for about five years until circa 1991.

Former development in the vicinity of the Site included the beam house, rocker vats, finishing area, rolling room, bleaching and oiling room, the boiler house, liquor tanks, and other various out-buildings and ancillary structures. Regulatory records indicate the facility burned circa 1993 and was subsequently demolished.

Multiple environmental assessments, including soil and groundwater sampling, have been performed on the property formerly occupied by AC Lawrence Leather. Soil and groundwater contamination from metals, volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) has been documented during previous assessments. It should be noted, the North Carolina Department of Environmental Quality (NCDEQ) has reviewed previous environmental assessment reports prepared at the Site, and the NCDEQ has not required additional assessment and/or remedial activities at the Site. In an October 7, 1998, letter the NCDEQ stated, "*Based on the report findings, the NC Superfund Section recommends that the Site be placed in the No Further Remedial Action Planned (NFRAP) status.*"

Due to this historical use of the Site as a tannery and the documented soil and groundwater contamination associated with the AC Lawrence Leather Company, BLE identified the AC Lawrence Leather Company a REC during the Phase I ESA.

Off-Site Findings

Surrounding properties generally consist of mixed commercial, light industrial, and residential developments. North of the Site is undeveloped land, followed by Hazelwood Avenue and single-family residences. South of the Site is a junk yard and single-family residences. East of the Site is Salon 212 and Penske Truck Rental. West of the Site is wooded land, followed by single-family residences and North Hazelwood Baptist Church. Southeast of the Site is Giles Truck Rental and Premier Magnesia (Chemical Manufacturer).

BLE did not identify RECs associated with surrounding properties to the Site.

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TABLES

FIGURES

APPENDICES

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPROXIMATE 3.5-ACRE SITE
563 HAZELWOOD AVENUE
WAYNESVILLE, HAYWOOD COUNTY
NORTH CAROLINA

Prepared For:
Town of Waynesville
129 Legion Drive
Waynesville, North Carolina 28786

BLE Project Number J21-14542-03

June 8, 2021

BUNNELL LAMMONS ENGINEERING
6004 Ponders Court | Greenville, SC 29615
864.288.1265 | 864.288.4330 | info@blecorp.com
BLECORP.COM

BUNNELL LAMMONS ENGINEERING

June 8, 2021

Town of Waynesville
129 Legion Drive
Waynesville, North Carolina 28786

Attention: Mr. Rob Hites

Subject: **Limited Phase II Environmental Site Assessment**
Approximate 3.5-Acre Site
563 Hazelwood Avenue
Waynesville, Haywood County, North Carolina
BLE Project Number J21-14542-03

Dear Mr. Hites,

Bunnell Lammons Engineering, Inc. (BLE) is pleased to submit this Limited Phase II Environmental Site Assessment (ESA) for the above referenced subject property, herein referred to as Site. Our services were performed as outlined in BLE Proposal No. P21-0999, dated May 4, 2021. The purpose of this assessment was to determine if Recognized Environmental Conditions (RECs) identified during a Phase I ESA have potentially impacted the Site.

The findings contained herein are based upon the data that was reviewed and documented in this report along with our experience on similar projects. The discovery of any additional information concerning the environmental conditions at the Site should be reported to us for our review so that we can reassess potential environmental impacts, if necessary.

We appreciate the opportunity to work with you on this project. Please call us if you have any questions or if we may be of further service.

Sincerely,

BUNNELL LAMMONS ENGINEERING, INC.

Daniel R. Matz, P.E.
Environmental Engineer
Licensed, North Carolina No. 47346

NORTH CAROLINA PROFESSIONAL SEAL 047346 ENGINEER DANIEL R. MATZ

6-8-21

Daniel P. Osbourne, P.G.
Senior Hydrogeologist
Licensed, North Carolina No. 2071

NORTH CAROLINA LICENSED SEAL 2071 GEOLOGIST DANIEL P. OSBOURNE

Case Narrative
Bunnell-Lammons Engineering, Inc.
Lot Number: WE10034

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

Where applicable, all soil sample results (including LOQ and DL if requested) are corrected for dry weight unless flagged with a "W" qualifier.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS
The method blank for analytical batch 92459 contained 1,2-Dichlorobenzene greater than the acceptance criteria. The associated sample, WE10034-010, did not contain detections for the target analyte; therefore, re-extraction and/or re-analysis of sample was not performed.

The first run of sample -002 was analyzed with failing internal, so the sample was re-analyzed. During the second run the LCS failed high for Acetone and the sample yielded a detection for this compound. Results from the second run have been reported and qualified with an "L".

Internal standard response for the following sample exceeded the lower control limit: WE10034-004. The sample was re-analyzed with concurring results. As such, the sample results may be biased high. The original set of data has been reported

SVOCs by GC/MS
Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 10% of analytes to recover marginally outside criteria. The following analytes recovered marginally outside LCS criteria: 2,4-Dinitrophenol.

The method blank associated with batch 91939 yielded a "J" value detection for Di-n-butyl phthalate. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

The following sample was diluted due to the nature of the sample matrix: WE10034-002. The LOQ has been elevated to reflect the dilution.

The method blank associated with batch 92194 yielded a "J" value detection for bis(2-Ethylhexyl)phthalate . No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B". The associated LCS recovered multiple compounds above method criteria. No corrective action is required as all associated samples were below the LOQ for associated compounds.

Metals by ICP-MS
The method blank associated with batch 92127 yielded a "J" value detection for Chromium. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

Sample Summary

Bunnell-Lammons Engineering, Inc.

Lot Number: WE10034

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	B-1 (2)	Solid	05/07/2021 1430	05/10/2021
002	B-2 (3.5)	Solid	05/07/2021 1440	05/10/2021
003	B-3 (2)	Solid	05/07/2021 1450	05/10/2021
004	B-4 (5)	Solid	05/07/2021 1500	05/10/2021
005	B-5 (2)	Solid	05/07/2021 1510	05/10/2021
006	GW-1	Aqueous	05/07/2021 1300	05/10/2021
007	GW-2	Aqueous	05/07/2021 1000	05/10/2021
008	GW-3	Aqueous	05/07/2021 1130	05/10/2021
009	GW-4	Aqueous	05/07/2021 1220	05/10/2021
010	GW-5	Aqueous	05/07/2021 1050	05/10/2021

(10 samples)

Detection Summary

Bunnell-Lammons Engineering, Inc.

Lot Number: WE10034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	B-1 (2)	Solid	Anthracene	8270E	50	J	ug/kg	11
001	B-1 (2)	Solid	Benzo(a)anthracene	8270E	180	S	ug/kg	11
001	B-1 (2)	Solid	Benzo(a)pyrene	8270E	160	S	ug/kg	11
001	B-1 (2)	Solid	Benzo(b)fluoranthene	8270E	180	S	ug/kg	11
001	B-1 (2)	Solid	Benzo(g,h,i)perylene	8270E	73		ug/kg	11
001	B-1 (2)	Solid	Benzo(k)fluoranthene	8270E	81		ug/kg	11
001	B-1 (2)	Solid	Chrysene	8270E	140	S	ug/kg	12
001	B-1 (2)	Solid	Fluoranthene	8270E	330	S	ug/kg	12
001	B-1 (2)	Solid	Indono(1,2,3-c,d)pyrene	8270E	60	J	ug/kg	12
001	B-1 (2)	Solid	2-Methylnaphthalene	8270E	100		ug/kg	12
001	B-1 (2)	Solid	Naphthalene	8270E	75		ug/kg	12
001	B-1 (2)	Solid	Phenanthrene	8270E	190	S	ug/kg	13
001	B-1 (2)	Solid	Pyrene	8270E	210	S	ug/kg	13
001	B-1 (2)	Solid	Aluminum	6020B	43000	S	mg/kg	13
001	B-1 (2)	Solid	Arsenic	6020B	1.5		mg/kg	13
001	B-1 (2)	Solid	Barium	6020B	160	S	mg/kg	13
001	B-1 (2)	Solid	Beryllium	6020B	0.37	S	mg/kg	13
001	B-1 (2)	Solid	Cadmium	6020B	0.078	J	mg/kg	13
001	B-1 (2)	Solid	Calcium	6020B	820	S	mg/kg	13
001	B-1 (2)	Solid	Chromium	6020B	37	B	mg/kg	13
001	B-1 (2)	Solid	Cobalt	6020B	11		mg/kg	13
001	B-1 (2)	Solid	Copper	6020B	26		mg/kg	13
001	B-1 (2)	Solid	Iron	6020B	41000	S	mg/kg	13
001	B-1 (2)	Solid	Lead	6020B	22		mg/kg	13
001	B-1 (2)	Solid	Magnesium	6020B	2100	S	mg/kg	13
001	B-1 (2)	Solid	Manganese	6020B	390	S	mg/kg	13
001	B-1 (2)	Solid	Mercury	7471B	0.028	J	mg/kg	13
001	B-1 (2)	Solid	Nickel	6020B	14		mg/kg	13
001	B-1 (2)	Solid	Potassium	6020B	2700	S	mg/kg	13
001	B-1 (2)	Solid	Selenium	6020B	0.51	J	mg/kg	13
001	B-1 (2)	Solid	Thallium	6020B	0.24		mg/kg	14
001	B-1 (2)	Solid	Vanadium	6020B	63	S	mg/kg	14
001	B-1 (2)	Solid	Zinc	6020B	64		mg/kg	14
002	B-2 (3.5)	Solid	Acetone	8260D	89	L	ug/kg	15
002	B-2 (3.5)	Solid	2-Butanone (MEK)	8260D	12	J	ug/kg	15
002	B-2 (3.5)	Solid	Carbon disulfide	8260D	5.6	J	ug/kg	15
002	B-2 (3.5)	Solid	Aluminum	6020B	40000		mg/kg	18
002	B-2 (3.5)	Solid	Arsenic	6020B	1.6		mg/kg	18
002	B-2 (3.5)	Solid	Barium	6020B	180		mg/kg	18
002	B-2 (3.5)	Solid	Beryllium	6020B	0.23		mg/kg	18
002	B-2 (3.5)	Solid	Calcium	6020B	2000		mg/kg	18
002	B-2 (3.5)	Solid	Chromium	6020B	41	B	mg/kg	18
002	B-2 (3.5)	Solid	Cobalt	6020B	13		mg/kg	18
002	B-2 (3.5)	Solid	Copper	6020B	27		mg/kg	18
002	B-2 (3.5)	Solid	Iron	6020B	47000		mg/kg	18

Detection Summary (Continued)

Lot Number: WE10034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	B-2 (3.5)	Solid	Lead	6020B	10		mg/kg	18
002	B-2 (3.5)	Solid	Magnesium	6020B	5200		mg/kg	18
002	B-2 (3.5)	Solid	Manganese	6020B	320		mg/kg	18
002	B-2 (3.5)	Solid	Mercury	7471B	0.022	J	mg/kg	18
002	B-2 (3.5)	Solid	Nickel	6020B	21		mg/kg	18
002	B-2 (3.5)	Solid	Potassium	6020B	2300		mg/kg	18
002	B-2 (3.5)	Solid	Selenium	6020B	0.79	J	mg/kg	18
002	B-2 (3.5)	Solid	Sodium	6020B	76	J	mg/kg	19
002	B-2 (3.5)	Solid	Thallium	6020B	0.37		mg/kg	19
002	B-2 (3.5)	Solid	Vanadium	6020B	64		mg/kg	19
002	B-2 (3.5)	Solid	Zinc	6020B	84		mg/kg	19
003	B-3 (2)	Solid	Di-n-butyl phthalate	8270E	6.2	BJ	ug/kg	22
003	B-3 (2)	Solid	2-Methylnaphthalene	8270E	2.3	J	ug/kg	22
003	B-3 (2)	Solid	Naphthalene	8270E	2.0	J	ug/kg	22
003	B-3 (2)	Solid	Aluminum	6020B	34000		mg/kg	23
003	B-3 (2)	Solid	Arsenic	6020B	2.8		mg/kg	23
003	B-3 (2)	Solid	Barium	6020B	150		mg/kg	23
003	B-3 (2)	Solid	Beryllium	6020B	0.18		mg/kg	23
003	B-3 (2)	Solid	Cadmium	6020B	0.058	J	mg/kg	23
003	B-3 (2)	Solid	Calcium	6020B	230		mg/kg	23
003	B-3 (2)	Solid	Chromium	6020B	30	B	mg/kg	23
003	B-3 (2)	Solid	Cobalt	6020B	18		mg/kg	23
003	B-3 (2)	Solid	Copper	6020B	29		mg/kg	23
003	B-3 (2)	Solid	Iron	6020B	47000		mg/kg	23
003	B-3 (2)	Solid	Lead	6020B	19		mg/kg	23
003	B-3 (2)	Solid	Magnesium	6020B	4300		mg/kg	23
003	B-3 (2)	Solid	Manganese	6020B	1000		mg/kg	23
003	B-3 (2)	Solid	Mercury	7471B	0.063	J	mg/kg	23
003	B-3 (2)	Solid	Nickel	6020B	26		mg/kg	23
003	B-3 (2)	Solid	Potassium	6020B	4600		mg/kg	23
003	B-3 (2)	Solid	Selenium	6020B	1.2	J	mg/kg	23
003	B-3 (2)	Solid	Silver	6020B	0.090	J	mg/kg	24
003	B-3 (2)	Solid	Sodium	6020B	46	J	mg/kg	24
003	B-3 (2)	Solid	Thallium	6020B	0.51		mg/kg	24
003	B-3 (2)	Solid	Vanadium	6020B	53		mg/kg	24
003	B-3 (2)	Solid	Zinc	6020B	110		mg/kg	24
004	B-4 (5)	Solid	Carbon disulfide	8260D	9.1		ug/kg	25
004	B-4 (5)	Solid	Cyclohexane	8260D	5.9	J	ug/kg	25
004	B-4 (5)	Solid	Methylcyclohexane	8260D	14		ug/kg	25
004	B-4 (5)	Solid	Toluene	8260D	9.7		ug/kg	25
004	B-4 (5)	Solid	Xylenes (total)	8260D	14	J	ug/kg	25
004	B-4 (5)	Solid	Anthracene	8270E	89		ug/kg	26
004	B-4 (5)	Solid	Benzo(a)anthracene	8270E	190		ug/kg	26
004	B-4 (5)	Solid	Benzo(a)pyrene	8270E	190		ug/kg	26
004	B-4 (5)	Solid	Benzo(b)fluoranthene	8270E	280		ug/kg	26
004	B-4 (5)	Solid	Benzo(g,h,i)perylene	8270E	110		ug/kg	26
004	B-4 (5)	Solid	Benzo(k)fluoranthene	8270E	86		ug/kg	26
004	B-4 (5)	Solid	Chrysene	8270E	260		ug/kg	27

Detection Summary (Continued)

Lot Number: WE10034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
004	B-4 (5)	Solid	Dibenzofuran	8270E	310		ug/kg	27
004	B-4 (5)	Solid	Fluoranthene	8270E	350		ug/kg	27
004	B-4 (5)	Solid	Indeno(1,2,3-c,d)pyrene	8270E	63		ug/kg	27
004	B-4 (5)	Solid	2-Methylnaphthalene	8270E	1600		ug/kg	27
004	B-4 (5)	Solid	Naphthalene	8270E	980		ug/kg	27
004	B-4 (5)	Solid	Phenanthrene	8270E	920		ug/kg	28
004	B-4 (5)	Solid	Pyrene	8270E	310		ug/kg	28
004	B-4 (5)	Solid	Aluminum	6020B	7600		mg/kg	28
004	B-4 (5)	Solid	Antimony	6020B	1.8		mg/kg	28
004	B-4 (5)	Solid	Arsenic	6020B	7.5		mg/kg	28
004	B-4 (5)	Solid	Barium	6020B	490		mg/kg	28
004	B-4 (5)	Solid	Beryllium	6020B	0.32		mg/kg	28
004	B-4 (5)	Solid	Cadmium	6020B	0.18		mg/kg	28
004	B-4 (5)	Solid	Calcium	6020B	18000		mg/kg	28
004	B-4 (5)	Solid	Chromium	6020B	10	B	mg/kg	28
004	B-4 (5)	Solid	Cobalt	6020B	4.9		mg/kg	28
004	B-4 (5)	Solid	Copper	6020B	410		mg/kg	28
004	B-4 (5)	Solid	Iron	6020B	15000		mg/kg	28
004	B-4 (5)	Solid	Lead	6020B	55		mg/kg	28
004	B-4 (5)	Solid	Magnesium	6020B	1600		mg/kg	28
004	B-4 (5)	Solid	Manganese	6020B	380		mg/kg	28
004	B-4 (5)	Solid	Mercury	7471B	0.089	J	mg/kg	28
004	B-4 (5)	Solid	Nickel	6020B	13		mg/kg	28
004	B-4 (5)	Solid	Potassium	6020B	980		mg/kg	28
004	B-4 (5)	Solid	Selenium	6020B	1.5		mg/kg	28
004	B-4 (5)	Solid	Sodium	6020B	140		mg/kg	29
004	B-4 (5)	Solid	Thallium	6020B	0.16		mg/kg	29
004	B-4 (5)	Solid	Vanadium	6020B	22		mg/kg	29
004	B-4 (5)	Solid	Zinc	6020B	70		mg/kg	29
005	B-5 (2)	Solid	Aluminum	6020B	31000		mg/kg	33
005	B-5 (2)	Solid	Arsenic	6020B	1.8		mg/kg	33
005	B-5 (2)	Solid	Barium	6020B	120		mg/kg	33
005	B-5 (2)	Solid	Beryllium	6020B	0.41		mg/kg	33
005	B-5 (2)	Solid	Calcium	6020B	180		mg/kg	33
005	B-5 (2)	Solid	Chromium	6020B	19	B	mg/kg	33
005	B-5 (2)	Solid	Cobalt	6020B	8.4		mg/kg	33
005	B-5 (2)	Solid	Copper	6020B	11		mg/kg	33
005	B-5 (2)	Solid	Iron	6020B	29000		mg/kg	33
005	B-5 (2)	Solid	Lead	6020B	12		mg/kg	33
005	B-5 (2)	Solid	Magnesium	6020B	2800		mg/kg	33
005	B-5 (2)	Solid	Manganese	6020B	170		mg/kg	33
005	B-5 (2)	Solid	Nickel	6020B	12		mg/kg	33
005	B-5 (2)	Solid	Potassium	6020B	4600		mg/kg	33
005	B-5 (2)	Solid	Selenium	6020B	0.67	J	mg/kg	33
005	B-5 (2)	Solid	Thallium	6020B	0.44		mg/kg	34
005	B-5 (2)	Solid	Vanadium	6020B	41		mg/kg	34
005	B-5 (2)	Solid	Zinc	6020B	50		mg/kg	34
006	GW-1	Aqueous	Diethylphthalate	8270E	0.35	J	ug/L	37

Detection Summary (Continued)

Lot Number: WE10034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
006	GW-1	Aqueous	bis(2-Ethylhexyl)phthalate	8270E	0.72	BJL	ug/L	37
006	GW-1	Aqueous	Dissolved Barium	6020B	73		ug/L	38
006	GW-1	Aqueous	Dissolved Calcium	6020B	50000	S	ug/L	38
006	GW-1	Aqueous	Dissolved Iron	6020B	13	J	ug/L	39
006	GW-1	Aqueous	Dissolved Magnesium	6020B	6000		ug/L	39
006	GW-1	Aqueous	Dissolved Manganese	6020B	150		ug/L	39
006	GW-1	Aqueous	Dissolved Nickel	6020B	2.0	J	ug/L	39
006	GW-1	Aqueous	Dissolved Potassium	6020B	5900		ug/L	39
006	GW-1	Aqueous	Dissolved Sodium	6020B	9400		ug/L	39
007	GW-2	Aqueous	Carbon disulfide	8260C	0.42	J	ug/L	40
007	GW-2	Aqueous	Diethylphthalate	8270E	0.41	J	ug/L	42
007	GW-2	Aqueous	bis(2-Ethylhexyl)phthalate	8270E	1.4	BJL	ug/L	42
007	GW-2	Aqueous	Dissolved Aluminum	6020B	170		ug/L	43
007	GW-2	Aqueous	Dissolved Antimony	6020B	1.1	J	ug/L	43
007	GW-2	Aqueous	Dissolved Barium	6020B	49		ug/L	43
007	GW-2	Aqueous	Dissolved Calcium	6020B	87000		ug/L	43
007	GW-2	Aqueous	Dissolved Cobalt	6020B	3.3	J	ug/L	43
007	GW-2	Aqueous	Dissolved Iron	6020B	1600		ug/L	44
007	GW-2	Aqueous	Dissolved Magnesium	6020B	24000		ug/L	44
007	GW-2	Aqueous	Dissolved Manganese	6020B	1100		ug/L	44
007	GW-2	Aqueous	Dissolved Nickel	6020B	1.8	J	ug/L	44
007	GW-2	Aqueous	Dissolved Potassium	6020B	4400		ug/L	44
007	GW-2	Aqueous	Dissolved Sodium	6020B	5700		ug/L	44
008	GW-3	Aqueous	bis(2-Ethylhexyl)phthalate	8270E	0.73	BJL	ug/L	47
008	GW-3	Aqueous	Dissolved Aluminum	6020B	51		ug/L	48
008	GW-3	Aqueous	Dissolved Antimony	6020B	0.80	J	ug/L	48
008	GW-3	Aqueous	Dissolved Barium	6020B	120		ug/L	48
008	GW-3	Aqueous	Dissolved Calcium	6020B	120000		ug/L	48
008	GW-3	Aqueous	Dissolved Copper	6020B	1.6	J	ug/L	48
008	GW-3	Aqueous	Dissolved Iron	6020B	110		ug/L	49
008	GW-3	Aqueous	Dissolved Magnesium	6020B	14000		ug/L	49
008	GW-3	Aqueous	Dissolved Manganese	6020B	160		ug/L	49
008	GW-3	Aqueous	Dissolved Nickel	6020B	13		ug/L	49
008	GW-3	Aqueous	Dissolved Potassium	6020B	7900		ug/L	49
008	GW-3	Aqueous	Dissolved Sodium	6020B	4200		ug/L	49
008	GW-3	Aqueous	Dissolved Vanadium	6020B	6.9		ug/L	49
009	GW-4	Aqueous	bis(2-Ethylhexyl)phthalate	8270E	0.63	BJL	ug/L	52
009	GW-4	Aqueous	2-Methylnaphthalene	8270E	0.043	J	ug/L	52
009	GW-4	Aqueous	Naphthalene	8270E	0.051	J	ug/L	52
009	GW-4	Aqueous	Dissolved Aluminum	6020B	13	J	ug/L	53
009	GW-4	Aqueous	Dissolved Antimony	6020B	2.1		ug/L	53
009	GW-4	Aqueous	Dissolved Barium	6020B	210		ug/L	53
009	GW-4	Aqueous	Dissolved Calcium	6020B	120000		ug/L	53
009	GW-4	Aqueous	Dissolved Iron	6020B	29	J	ug/L	54
009	GW-4	Aqueous	Dissolved Magnesium	6020B	9100		ug/L	54
009	GW-4	Aqueous	Dissolved Manganese	6020B	940		ug/L	54
009	GW-4	Aqueous	Dissolved Nickel	6020B	1.3	J	ug/L	54
009	GW-4	Aqueous	Dissolved Potassium	6020B	7500		ug/L	54

Detection Summary (Continued)

Lot Number: WE10034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
009	GW-4	Aqueous	Dissolved Sodium	6020B	8900		ug/L	54
010	GW-5	Aqueous	Acenaphthene	8270E	0.045	J	ug/L	56
010	GW-5	Aqueous	Diethylphthalate	8270E	0.43	J	ug/L	57
010	GW-5	Aqueous	Di-n-butyl phthalate	8270E	1.0	J	ug/L	57
010	GW-5	Aqueous	bis(2-Ethylhexyl)phthalate	8270E	0.64	BJL	ug/L	57
010	GW-5	Aqueous	Dissolved Aluminum	6020B	81		ug/L	58
010	GW-5	Aqueous	Dissolved Antimony	6020B	0.58	J	ug/L	58
010	GW-5	Aqueous	Dissolved Barium	6020B	28		ug/L	58
010	GW-5	Aqueous	Dissolved Calcium	6020B	80000		ug/L	58
010	GW-5	Aqueous	Dissolved Iron	6020B	2300		ug/L	58
010	GW-5	Aqueous	Dissolved Magnesium	6020B	15000		ug/L	59
010	GW-5	Aqueous	Dissolved Manganese	6020B	430		ug/L	59
010	GW-5	Aqueous	Dissolved Nickel	6020B	1.6	J	ug/L	59
010	GW-5	Aqueous	Dissolved Potassium	6020B	8900		ug/L	59
010	GW-5	Aqueous	Dissolved Sodium	6020B	7400		ug/L	59

(204 detections)

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-1 (2)**
Date Sampled: **05/07/2021 1430**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-001**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1145	JM1		92636	5.73

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	8.2	ug/kg	1
Benzene	71-43-2	8260D	ND		5.1	2.0	ug/kg	1
Bromodichloromethane	75-27-4	8260D	ND		5.1	2.0	ug/kg	1
Bromoform	75-25-2	8260D	ND		5.1	2.0	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		5.1	3.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260D	ND		20	4.1	ug/kg	1
Carbon disulfide	75-15-0	8260D	ND		5.1	2.0	ug/kg	1
Carbon tetrachloride	56-23-5	8260D	ND		5.1	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260D	ND		5.1	2.0	ug/kg	1
Chloroethane	75-00-3	8260D	ND		5.1	2.0	ug/kg	1
Chloroform	67-66-3	8260D	ND		5.1	2.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.1	3.1	ug/kg	1
Cyclohexane	110-82-7	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.1	2.0	ug/kg	1
Dibromochloromethane	124-48-1	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.1	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.1	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.1	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260D	ND		5.1	3.1	ug/kg	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.1	2.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.1	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.1	2.0	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.1	2.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.1	2.0	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.1	2.0	ug/kg	1
Ethylbenzene	100-41-4	8260D	ND		5.1	2.0	ug/kg	1
2-Hexanone	591-78-6	8260D	ND		10	4.1	ug/kg	1
Isopropylbenzene	98-82-8	8260D	ND		5.1	2.0	ug/kg	1
Methyl acetate	79-20-9	8260D	ND		5.1	2.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.1	2.0	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	4.1	ug/kg	1
Methylcyclohexane	108-87-2	8260D	ND		5.1	2.0	ug/kg	1
Methylene chloride	75-09-2	8260D	ND		5.1	2.0	ug/kg	1
Styrene	100-42-5	8260D	ND		5.1	2.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.1	2.0	ug/kg	1
Tetrachloroethene	127-18-4	8260D	ND		5.1	2.0	ug/kg	1
Toluene	108-88-3	8260D	ND		5.1	2.0	ug/kg	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
108 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-1 (2)**
Date Sampled: **05/07/2021 1430**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-001**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1145	JM1		92638	5.73

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.1	2.0	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.1	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.1	2.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.1	2.0	ug/kg	1
Trichloroethene	79-01-6	8260D	ND		5.1	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.1	2.0	ug/kg	1
Vinyl chloride	75-01-4	8260D	ND		5.1	3.1	ug/kg	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	47-138
1,2-Dichloroethane-d4		94	53-142
Toluene-d8		102	68-124

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	20	05/20/2021 1839	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		62	19	ug/kg	1
Acenaphthylene	208-96-8	8270E	ND		62	22	ug/kg	1
Acetophenone	98-86-2	8270E	ND		300	110	ug/kg	1
Anthracene	**120-12-7**	8270E	**50**	**J**	**62**	**12**	**ug/kg**	1
Atrazine	1912-24-9	8270E	ND		300	110	ug/kg	1
Benzaldehyde	100-52-7	8270E	ND	S	300	110	ug/kg	1
Benzo(a)anthracene	**56-55-3**	8270E	**180**	**S**	**62**	**13**	**ug/kg**	1
Benzo(a)pyrene	**50-32-8**	8270E	**160**	**S**	**62**	**15**	**ug/kg**	1
Benzo(b)fluoranthene	**205-99-2**	8270E	**180**	**S**	**62**	**11**	**ug/kg**	1
Benzo(g,h,i)perylene	**191-24-2**	8270E	**73**		**62**	**15**	**ug/kg**	1
Benzo(k)fluoranthene	**207-08-9**	8270E	**81**		**62**	**11**	**ug/kg**	1
1,1'-Biphenyl	92-52-4	8270E	ND		300	110	ug/kg	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		300	110	ug/kg	1
Butyl benzyl phthalate	85-68-7	8270E	ND		300	110	ug/kg	1
Caprolactam	105-60-2	8270E	ND		300	110	ug/kg	1
Carbazole	86-74-8	8270E	ND		300	110	ug/kg	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		300	110	ug/kg	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		300	110	ug/kg	1
4-Chloroaniline	106-47-8	8270E	ND	S	300	110	ug/kg	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		300	110	ug/kg	1

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DL = Detection Limit
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Q = Surrogate failure
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Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-1 (2)**
Date Sampled: **05/07/2021 1430**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-001**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	20	05/23/2021 1839	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		300	110	ug/kg	1
2-Chloronaphthalene	91-58-7	8270E	ND		300	110	ug/kg	1
2-Chlorophenol	95-57-8	8270E	ND		300	110	ug/kg	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		300	110	ug/kg	1
Chrysene	**218-01-9**	**8270E**	**140**	**S**	**62**	**10**	**ug/kg**	**1**
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		62	12	ug/kg	1
Dibenzofuran	132-64-9	8270E	ND		300	110	ug/kg	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND	S	300	110	ug/kg	1
2,4-Dichlorophenol	120-83-2	8270E	ND		300	110	ug/kg	1
Diethylphthalate	84-66-2	8270E	ND		300	110	ug/kg	1
Dimethyl phthalate	131-11-3	8270E	ND		300	170	ug/kg	1
2,4-Dimethylphenol	105-67-9	8270E	ND		300	110	ug/kg	1
Di-n-butyl phthalate	84-74-2	8270E	ND		300	110	ug/kg	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND	S	1500	570	ug/kg	1
2,4-Dinitrophenol	51-28-5	8270E	ND	LS	1500	570	ug/kg	1
2,4-Dinitrotoluene	121-14-2	8270E	ND	S	620	230	ug/kg	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		620	230	ug/kg	1
Di-n-octylphthalate	117-84-0	8270E	ND	S	300	110	ug/kg	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270E	ND	S	1500	570	ug/kg	1
Fluoranthene	**206-44-0**	**8270E**	**330**	**S**	**62**	**9.6**	**ug/kg**	**1**
Fluorene	86-73-7	8270E	ND		62	13	ug/kg	1
Hexachlorobenzene	118-74-1	8270E	ND		300	110	ug/kg	1
Hexachlorobutadiene	87-68-3	8270E	ND		300	110	ug/kg	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		1500	570	ug/kg	1
Hexachloroethane	67-72-1	8270E	ND		300	110	ug/kg	1
Indeno(1,2,3-c,d)pyrene	**193-39-5**	**8270E**	**60**	**J**	**62**	**23**	**ug/kg**	**1**
Isophorone	78-59-1	8270E	ND		300	110	ug/kg	1
2-Methylnaphthalene	**91-57-6**	**8270E**	**100**		**62**	**23**	**ug/kg**	**1**
2-Methylphenol	95-48-7	8270E	ND		300	110	ug/kg	1
3+4-Methylphenol	106-44-5	8270E	ND	S	620	230	ug/kg	1
Naphthalene	**91-20-3**	**8270E**	**75**		**62**	**22**	**ug/kg**	**1**
2-Nitroaniline	88-74-4	8270E	ND	S	620	230	ug/kg	1
3-Nitroaniline	99-09-2	8270E	ND	S	620	230	ug/kg	1
4-Nitroaniline	100-01-6	8270E	ND	S	620	230	ug/kg	1
Nitrobenzene	98-95-3	8270E	ND		300	110	ug/kg	1
2-Nitrophenol	88-75-5	8270E	ND	S	620	230	ug/kg	1
4-Nitrophenol	100-02-7	8270E	ND	S	1500	570	ug/kg	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND		300	110	ug/kg	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		300	110	ug/kg	1
Pentachlorophenol	87-86-5	8270E	ND	S	1500	570	ug/kg	1

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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-1 (2)**
Date Sampled: **05/07/2021 1430**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-001**
Matrix: **Solid**
% Solids: **85.4** 05/11/2021 0008

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	20	05/20/2021 1839	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Phenanthrene	**85-01-8**	**8270E**	**190**	**S**	**62**	16	**ug/kg**	1
Phenol	108-95-2	8270E	ND		300	110	ug/kg	1
Pyrene	**129-00-0**	**8270E**	**210**	**S**	**62**	11	**ug/kg**	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND	S	300	110	ug/kg	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		300	110	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		83	33-102
2-Fluorophenol		67	35-115
Nitrobenzene-d5		80	22-109
Phenol-d5		66	33-122
Terphenyl-d14		92	41-120
2,4,6-Tribromophenol		65	30-117

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1232	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1608	CMS2	05/12/2021 1545	92064
2	3050B	6020B	10	05/14/2021 1121	BNW	05/14/2021 0404	92127

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6020B**	**43000**	**S**	**98**	**25**	**mg/kg**	2
Antimony	7440-36-0	6020B	ND	S	0.49	0.20	mg/kg	1
Arsenic	**7440-38-2**	**6020B**	**1.5**		**0.49**	**0.20**	**mg/kg**	1
Barium	**7440-39-3**	**6020B**	**160**	**S**	**1.2**	**0.30**	**mg/kg**	1
Beryllium	**7440-41-7**	**6020B**	**0.37**	**S**	**0.098**	**0.033**	**mg/kg**	1
Cadmium	**7440-43-9**	**6020B**	**0.078**	**J**	**0.13**	**0.025**	**mg/kg**	1
Calcium	**7440-70-2**	**6020B**	**820**	**S**	**98**	**29**	**mg/kg**	1
Chromium	**7440-47-3**	**6020B**	**37**	**B**	**1.2**	**0.54**	**mg/kg**	1
Cobalt	**7440-48-4**	**6020B**	**11**		**1.2**	**0.29**	**mg/kg**	1
Copper	**7440-50-8**	**6020B**	**26**		**1.2**	**0.32**	**mg/kg**	1
Iron	**7439-89-6**	**6020B**	**41000**	**S**	**130**	**25**	**mg/kg**	2
Lead	**7439-92-1**	**6020B**	**22**		**0.25**	**0.067**	**mg/kg**	1
Magnesium	**7439-95-4**	**6020B**	**2100**	**S**	**98**	**25**	**mg/kg**	1
Manganese	**7439-96-5**	**6020B**	**390**	**S**	**1.2**	**0.36**	**mg/kg**	1
Mercury	**7439-97-6**	**7471B**	**0.028**	**J**	**0.091**	**0.022**	**mg/kg**	1
Nickel	**7440-02-0**	**6020B**	**14**		**1.2**	**0.29**	**mg/kg**	1
Potassium	**7440-09-7**	**6020B**	**2700**	**S**	**98**	**25**	**mg/kg**	1
Selenium	**7782-49-2**	**6020B**	**0.51**	**J**	**1.2**	**0.47**	**mg/kg**	1

LOQ = Limit of Quantitation
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H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-1 (2)**
Date Sampled: **05/07/2021 1430**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-001**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1232	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1608	CMS2	05/12/2021 1545	92064
2	3050B	6020B	10	05/14/2021 1121	BNW	05/14/2021 0404	92127

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Silver	7440-22-4	6020B	ND		0.25	0.059	mg/kg	1
Sodium	7440-23-5	6020B	ND		98	36	mg/kg	1
Thallium	**7440-28-0**	**6020B**	**0.24**		**0.12**	**0.029**	**mg/kg**	**1**
Vanadium	**7440-62-2**	**6020B**	**63**	**S**	**1.2**	**0.25**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6020B**	**54**		**2.5**	**0.49**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-2 (3.5)**
Date Sampled: **05/07/2021 1440**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-002**
Matrix: **Solid**
% Solids: **83.6** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260D	1	05/20/2021 1720	JM1		92987	4.84

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	**67-64-1**	**8260D**	**89**	L	**25**	**9.9**	**ug/kg**	**2**
Benzene	71-43-2	8260D	ND		6.2	2.5	ug/kg	2
Bromodichloromethane	75-27-4	8260D	ND		6.2	2.5	ug/kg	2
Bromoform	75-25-2	8260D	ND		6.2	2.5	ug/kg	2
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		6.2	3.7	ug/kg	2
2-Butanone (MEK)	**78-93-3**	**8260D**	**12**	J	**25**	**4.9**	**ug/kg**	**2**
Carbon disulfide	**75-15-0**	**8260D**	**5.6**	J	**6.2**	**2.5**	**ug/kg**	**2**
Carbon tetrachloride	56-23-5	8260D	ND		6.2	2.5	ug/kg	2
Chlorobenzene	108-90-7	8260D	ND		6.2	2.5	ug/kg	2
Chloroethane	75-00-3	8260D	ND		6.2	2.5	ug/kg	2
Chloroform	67-66-3	8260D	ND		6.2	2.5	ug/kg	2
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		6.2	3.7	ug/kg	2
Cyclohexane	110-82-7	8260D	ND		6.2	2.5	ug/kg	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		6.2	2.5	ug/kg	2
Dibromochloromethane	124-48-1	8260D	ND		6.2	2.5	ug/kg	2
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		6.2	2.5	ug/kg	2
1,2-Dichlorobenzene	95-50-1	8260D	ND		6.2	2.5	ug/kg	2
1,3-Dichlorobenzene	541-73-1	8260D	ND		6.2	2.5	ug/kg	2
1,4-Dichlorobenzene	106-46-7	8260D	ND		6.2	2.5	ug/kg	2
Dichlorodifluoromethane	75-71-8	8260D	ND		6.2	3.7	ug/kg	2
1,1-Dichloroethane	75-34-3	8260D	ND		6.2	2.5	ug/kg	2
1,2-Dichloroethane	107-06-2	8260D	ND		6.2	2.5	ug/kg	2
1,1-Dichloroethene	75-35-4	8260D	ND		6.2	2.5	ug/kg	2
cis-1,2-Dichloroethene	156-59-2	8260D	ND		6.2	2.5	ug/kg	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		6.2	2.5	ug/kg	2
1,2-Dichloropropane	78-87-5	8260D	ND		6.2	2.5	ug/kg	2
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		6.2	2.5	ug/kg	2
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		6.2	2.5	ug/kg	2
Ethylbenzene	100-41-4	8260D	ND		6.2	2.5	ug/kg	2
2-Hexanone	591-78-6	8260D	ND		12	4.9	ug/kg	2
Isopropylbenzene	98-82-8	8260D	ND		6.2	2.5	ug/kg	2
Methyl acetate	79-20-9	8260D	ND		6.2	2.5	ug/kg	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		6.2	2.5	ug/kg	2
4-Methyl-2-pentanone	108-10-1	8260D	ND		12	4.9	ug/kg	2
Methylcyclohexane	108-87-2	8260D	ND		6.2	2.5	ug/kg	2
Methylene chloride	75-09-2	8260D	ND		6.2	2.5	ug/kg	2
Styrene	100-42-5	8260D	ND		6.2	2.5	ug/kg	2
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		6.2	2.5	ug/kg	2
Tetrachloroethene	127-18-4	8260D	ND		6.2	2.5	ug/kg	2
Toluene	108-88-3	8260D	ND		6.2	2.5	ug/kg	2

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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-2 (3.5)**
Date Sampled: **05/07/2021 1440**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-002**
Matrix: **Solid**
% Solids: **83.6** 05/11/2021 0008

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
2	5035	8260D	1	05/20/2021 1720	JM1		92987	4.84

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		6.2	2.5	ug/kg	2
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		6.2	2.5	ug/kg	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		6.2	2.5	ug/kg	2
1,1,2-Trichloroethane	79-00-5	8260D	ND		6.2	2.5	ug/kg	2
Trichloroethene	79-01-6	8260D	ND		6.2	2.5	ug/kg	2
Trichlorofluoromethane	75-69-4	8260D	ND		6.2	2.5	ug/kg	2
Vinyl chloride	75-01-4	8260D	ND		6.2	3.7	ug/kg	2
Xylenes (total)	1330-20-7	8260D	ND		12	4.9	ug/kg	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		99	47-138
1,2-Dichloroethane-d4		95	53-142
Toluene-d8		105	68-124

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	10	05/23/2021 1903	STM	05/11/2021 2048	91839

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		31	9.7	ug/kg	1
Acenaphthylene	208-96-8	8270E	ND		31	11	ug/kg	1
Acetophenone	98-86-2	8270E	ND		150	58	ug/kg	1
Anthracene	120-12-7	8270E	ND		31	5.9	ug/kg	1
Atrazine	1912-24-9	8270E	ND		150	58	ug/kg	1
Benzaldehyde	100-52-7	8270E	ND		150	58	ug/kg	1
Benzo(a)anthracene	56-55-3	8270E	ND		31	6.9	ug/kg	1
Benzo(a)pyrene	50-32-8	8270E	ND		31	7.7	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		31	5.8	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		31	7.6	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		31	5.6	ug/kg	1
1,1'-Biphenyl	92-52-4	8270E	ND		150	58	ug/kg	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		150	58	ug/kg	1
Butyl benzyl phthalate	85-68-7	8270E	ND		150	58	ug/kg	1
Caprolactam	105-60-2	8270E	ND		150	58	ug/kg	1
Carbazole	86-74-8	8270E	ND		150	58	ug/kg	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		150	58	ug/kg	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		150	58	ug/kg	1
4-Chloroaniline	106-47-8	8270E	ND		150	58	ug/kg	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		150	58	ug/kg	1

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S = MS/MSD failure

Client: Bunnell-Lammons Engineering, Inc.
Description: B-2 (3.5)
Date Sampled: 05/07/2021 1440
Date Received: 05/10/2021

Laboratory ID: WB10034-002
Matrix: Solid
% Solids: 83.6 05/11/2021 0008

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	10	05/23/2021 1903	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		150	58	ug/kg	1
2-Chloronaphthalene	91-58-7	8270E	ND		150	58	ug/kg	1
2-Chlorophenol	95-57-8	8270E	ND		150	58	ug/kg	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		150	58	ug/kg	1
Chrysene	218-01-9	8270E	ND		31	5.2	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		31	5.8	ug/kg	1
Dibenzofuran	132-64-9	8270E	ND		150	58	ug/kg	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		150	58	ug/kg	1
2,4-Dichlorophenol	120-83-2	8270E	ND		150	58	ug/kg	1
Diethylphthalate	84-66-2	8270E	ND		150	58	ug/kg	1
Dimethyl phthalate	131-11-3	8270E	ND		150	88	ug/kg	1
2,4-Dimethylphenol	105-67-9	8270E	ND		150	50	ug/kg	1
Di-n-butyl phthalate	84-74-2	8270E	ND		150	58	ug/kg	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		780	290	ug/kg	1
2,4-Dinitrophenol	51-28-5	8270E	ND	L	780	290	ug/kg	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		310	120	ug/kg	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		310	120	ug/kg	1
Di-n-octylphthalate	117-84-0	8270E	ND		150	58	ug/kg	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270E	ND		780	290	ug/kg	1
Fluoranthene	206-44-0	8270E	ND		31	4.9	ug/kg	1
Fluorene	86-73-7	8270E	ND		31	6.6	ug/kg	1
Hexachlorobenzene	118-74-1	8270E	ND		150	58	ug/kg	1
Hexachlorobutadiene	87-68-3	8270E	ND		150	58	ug/kg	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		780	290	ug/kg	1
Hexachloroethane	67-72-1	8270E	ND		150	58	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		31	12	ug/kg	1
Isophorone	78-59-1	8270E	ND		150	50	ug/kg	1
2-Methylnaphthalene	91-57-6	8270E	ND		31	12	ug/kg	1
2-Methylphenol	95-48-7	8270E	ND		150	58	ug/kg	1
3+4-Methylphenol	108-44-5	8270E	ND		310	120	ug/kg	1
Naphthalene	91-20-3	8270E	ND		31	11	ug/kg	1
2-Nitroaniline	88-74-4	8270E	ND		310	120	ug/kg	1
3-Nitroaniline	99-09-2	8270E	ND		310	120	ug/kg	1
4-Nitroaniline	100-01-6	8270E	ND		310	120	ug/kg	1
Nitrobenzene	98-95-3	8270E	ND		150	58	ug/kg	1
2-Nitrophenol	88-75-5	8270E	ND		310	120	ug/kg	1
4-Nitrophenol	100-02-7	8270E	ND		780	290	ug/kg	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND		150	58	ug/kg	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		150	58	ug/kg	1
Pentachlorophenol	87-86-5	8270E	ND		780	290	ug/kg	1

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L = LCS/LCSD failure
S = MS/MSD failure

Client: Bunnell-Lammons Engineering, Inc.
Description: B-2 (3.5)
Date Sampled: 05/07/2021 1440
Date Received: 05/10/2021

Laboratory ID: WE10034-002
Matrix: Solid
% Solids: 83.6 05/11/2021 0008

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	10	05/20/2021 1903	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Phenanthrene	85-01-8	8270E	ND		31	8.4	ug/kg	1
Phenol	108-95-2	8270E	ND		150	58	ug/kg	1
Pyrene	129-00-0	8270E	ND		31	5.8	ug/kg	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		150	58	ug/kg	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		150	58	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		63	33-102
2-Fluorophenol		53	35-115
Nitrobenzene-d5		58	22-109
Phenol-d5		53	33-122
Terphenyl-d14		72	41-120
2,4,6-Tribromophenol		69	30-117

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1301	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1616	CMS2	05/12/2021 1545	92064
2	3050B	6020B	10	05/14/2021 1151	BNW	05/14/2021 0404	92127

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6020B**	**40000**		**110**	**28**	**mg/kg**	**2**
Antimony	7440-36-0	6020B	ND		0.56	0.22	mg/kg	1
Arsenic	**7440-38-2**	**6020B**	**1.6**		**0.56**	**0.22**	**mg/kg**	**1**
Barium	**7440-39-3**	**6020B**	**180**		**1.4**	**0.35**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6020B**	**0.23**		**0.11**	**0.038**	**mg/kg**	**1**
Cadmium	7440-43-9	6020B	ND		0.15	0.028	mg/kg	1
Calcium	**7440-70-2**	**6020B**	**2000**		**110**	**34**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6020B**	**41**	**B**	**1.4**	**0.62**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6020B**	**13**		**1.4**	**0.34**	**mg/kg**	**1**
Copper	**7440-50-8**	**6020B**	**27**		**1.4**	**0.37**	**mg/kg**	**1**
Iron	7439-89-6	6020B	47000		150	28	mg/kg	2
Lead	**7439-92-1**	**6020B**	**10**		**0.28**	**0.076**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6020B**	**5200**		**110**	**28**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6020B**	**320**		**1.4**	**0.41**	**mg/kg**	**1**
Mercury	**7439-97-6**	**7471B**	**0.022**	**J**	**0.080**	**0.022**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6020B**	**21**		**1.4**	**0.34**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6020B**	**2300**		**110**	**28**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6020B**	**0.79**	**J**	**1.4**	**0.53**	**mg/kg**	**1**

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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-2 (3.5)**
Date Sampled: **05/07/2021 1440**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-002**
Matrix: **Solid**
% Solids: **83.6** **05/11/2021 0008**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1301	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1616	CWS2	05/12/2021 1545	92064
2	3050B	6020B	10	05/14/2021 1151	BNW	05/14/2021 0404	92127

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Silver	7440-22-4	6020B	ND		0.28	0.067	mg/kg	1
Sodium	**7440-23-5**	**6020B**	**76**	J	**110**	41	**mg/kg**	1
Thallium	**7440-28-0**	**6020B**	**0.37**		**0.14**	0.034	**mg/kg**	1
Vanadium	**7440-62-2**	**6020B**	**64**		**1.4**	0.28	**mg/kg**	1
Zinc	**7440-66-6**	**6020B**	**94**		**2.8**	0.56	mg/kg	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-3 (2)**
Date Sampled: **05/07/2021 1450**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-003**
Matrix: **Solid**
% Solids: **87.8** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1233	JM1		92636	5.61

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	8.1	ug/kg	1
Benzene	71-43-2	8260D	ND		5.1	2.0	ug/kg	1
Bromodichloromethane	75-27-4	8260D	ND		5.1	2.0	ug/kg	1
Bromoform	75-25-2	8260D	ND		5.1	2.0	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		5.1	3.0	ug/kg	1
2-Butanone (MEK)	78-93-3	8260D	ND		20	4.1	ug/kg	1
Carbon disulfide	75-15-0	8260D	ND		5.1	2.0	ug/kg	1
Carbon tetrachloride	56-23-5	8260D	ND	S	5.1	2.0	ug/kg	1
Chlorobenzene	108-90-7	8260D	ND		5.1	2.0	ug/kg	1
Chloroethane	75-00-3	8260D	ND		5.1	2.0	ug/kg	1
Chloroform	67-66-3	8260D	ND		5.1	2.0	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.1	3.0	ug/kg	1
Cyclohexane	110-82-7	8260D	ND	S	5.1	2.0	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.1	2.0	ug/kg	1
Dibromochloromethane	124-48-1	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.1	2.0	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.1	2.0	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.1	2.0	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260D	ND		5.1	3.0	ug/kg	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.1	2.0	ug/kg	1
1,1-Dichloroethene	75-35-4	8260D	ND	S	5.1	2.0	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.1	2.0	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.1	2.0	ug/kg	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.1	2.0	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.1	2.0	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.1	2.0	ug/kg	1
Ethylbenzene	100-41-4	8260D	ND		5.1	2.0	ug/kg	1
2-Hexanone	591-78-6	8260D	ND		10	4.1	ug/kg	1
Isopropylbenzene	98-82-8	8260D	ND	S	5.1	2.0	ug/kg	1
Methyl acetate	79-20-9	8260D	ND	S	5.1	2.0	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.1	2.0	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	4.1	ug/kg	1
Methylcyclohexane	108-87-2	8260D	ND	S	5.1	2.0	ug/kg	1
Methylene chloride	75-09-2	8260D	ND		5.1	2.0	ug/kg	1
Styrene	100-42-5	8260D	ND		5.1	2.0	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.1	2.0	ug/kg	1
Tetrachloroethene	127-18-4	8260D	ND	S	5.1	2.0	ug/kg	1
Toluene	108-88-3	8260D	ND		5.1	2.0	ug/kg	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between the GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: Bunnell-Lammons Engineering, Inc.
Description: B-3 (2)
Date Sampled: 05/07/2021 1450
Date Received: 05/10/2021

Laboratory ID: WE10034-003
Matrix: Solid
% Solids: 87.8 05/11/2021 0008

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1233	JM1		92636	5.81

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND	S	5.1	2.0	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND	S	5.1	2.0	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260D	ND	S	5.1	2.0	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.1	2.0	ug/kg	1
Trichloroethene	79-01-6	8260D	ND		5.1	2.0	ug/kg	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.1	2.0	ug/kg	1
Vinyl chloride	75-01-4	8260D	ND		5.1	3.0	ug/kg	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.1	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	47-138
1,2-Dichloroethane-d4		93	53-142
Toluene-d8		102	68-124

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	1	05/24/2021 1846	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		3.0	0.93	ug/kg	1
Acenaphthylene	208-96-8	8270E	ND		3.0	1.1	ug/kg	1
Acetophenone	98-86-2	8270E	ND		15	5.6	ug/kg	1
Anthracene	120-12-7	8270E	ND		3.0	0.57	ug/kg	1
Atrazine	1912-24-9	8270E	ND		15	5.6	ug/kg	1
Benzaldehyde	100-52-7	8270E	ND		15	5.6	ug/kg	1
Benzo(a)anthracene	56-55-3	8270E	ND		3.0	0.66	ug/kg	1
Benzo(a)pyrene	50-32-8	8270E	ND		3.0	0.74	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		3.0	0.58	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		3.0	0.73	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		3.0	0.54	ug/kg	1
1,1'-Biphenyl	92-52-4	8270E	ND		15	5.6	ug/kg	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		15	5.6	ug/kg	1
Butyl benzyl phthalate	85-68-7	8270E	ND		15	5.6	ug/kg	1
Caprolactam	105-60-2	8270E	ND		15	5.6	ug/kg	1
Carbazole	86-74-8	8270E	ND		15	5.6	ug/kg	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		15	5.6	ug/kg	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		15	5.6	ug/kg	1
4-Chloroaniline	106-47-8	8270E	ND		15	5.6	ug/kg	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		15	5.6	ug/kg	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-3 (2)**
Date Sampled: **05/07/2021 1450**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-003**
Matrix: **Solid**
% Solids: **87.8** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	1	05/24/2021 1846	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		15	5.6	ug/kg	1
2-Chloronaphthalene	91-58-7	8270E	ND		15	5.6	ug/kg	1
2-Chlorophenol	95-57-8	8270E	ND		15	5.6	ug/kg	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		15	5.6	ug/kg	1
Chrysene	218-01-9	8270E	ND		3.0	0.50	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		3.0	0.57	ug/kg	1
Dibenzofuran	132-64-9	8270E	ND		15	5.6	ug/kg	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		15	5.6	ug/kg	1
2,4-Dichlorophenol	120-83-2	8270E	ND		15	5.6	ug/kg	1
Diethylphthalate	84-66-2	8270E	ND		15	5.6	ug/kg	1
Dimethyl phthalate	131-11-3	8270E	ND		15	8.3	ug/kg	1
2,4-Dimethylphenol	105-67-9	8270E	ND		15	5.6	ug/kg	1
Di-n-butyl phthalate	**84-74-2**	**8270E**	**8.2**	**BJ**	**15**	**5.6**	**ug/kg**	**1**
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		75	28	ug/kg	1
2,4-Dinitrophenol	51-28-5	8270E	ND	L	75	28	ug/kg	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		30	11	ug/kg	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		30	11	ug/kg	1
Di-n-octylphthalate	117-84-0	8270E	ND		15	5.6	ug/kg	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270E	ND		75	28	ug/kg	1
Fluoranthene	206-44-0	8270E	ND		3.0	0.47	ug/kg	1
Fluorene	86-73-7	8270E	ND		3.0	0.64	ug/kg	1
Hexachlorobenzene	118-74-1	8270E	ND		15	5.6	ug/kg	1
Hexachlorobutadiene	87-68-3	8270E	ND		15	5.6	ug/kg	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		75	28	ug/kg	1
Hexachloroethane	67-72-1	8270E	ND		15	5.6	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		3.0	1.1	ug/kg	1
Isophorone	78-59-1	8270E	ND		15	5.6	ug/kg	1
2-Methylnaphthalene	**91-57-6**	**8270E**	**2.3**	**J**	**3.0**	**1.1**	**ug/kg**	**1**
2-Methylphenol	95-48-7	8270E	ND		15	5.6	ug/kg	1
3+4-Methylphenol	106-44-5	8270E	ND		30	11	ug/kg	1
Naphthalene	**91-20-3**	**8270E**	**2.0**	**J**	**3.0**	**1.1**	**ug/kg**	**1**
2-Nitroaniline	88-74-4	8270E	ND		30	11	ug/kg	1
3-Nitroaniline	99-09-2	8270E	ND		30	11	ug/kg	1
4-Nitroaniline	100-01-6	8270E	ND		30	11	ug/kg	1
Nitrobenzene	98-95-3	8270E	ND		15	5.6	ug/kg	1
2-Nitrophenol	88-75-5	8270E	ND		30	11	ug/kg	1
4-Nitrophenol	100-02-7	8270E	ND		75	28	ug/kg	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND		15	5.6	ug/kg	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		15	5.6	ug/kg	1
Pentachlorophenol	87-86-5	8270E	ND		75	28	ug/kg	1

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Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-3 (2)**
Date Sampled: **05/07/2021 1450**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-003**
Matrix: **Solid**
% Solids: **87.8** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	1	05/24/2021 1846	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Phenanthrene	85-01-8	8270E	ND		3.0	0.80	ug/kg	1
Phenol	108-95-2	8270E	ND		15	5.8	ug/kg	1
Pyrene	129-00-0	8270E	ND		3.0	0.56	ug/kg	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		15	5.8	ug/kg	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		15	5.8	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		70	33-102
2-Fluorophenol		67	35-115
Nitrobenzene-d5		68	22-109
Phenol-d5		73	33-122
Terphenyl-d14		82	41-120
2,4,6-Tribromophenol		78	30-117

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1306	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1619	CMS2	05/12/2021 1545	92064
2	3050B	6020B	10	05/14/2021 1156	BNW	05/14/2021 0404	92127

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6020B**	**34000**		**100**	**26**	**mg/kg**	**2**
Antimony	7440-36-0	6020B	ND		0.52	0.21	mg/kg	1
Arsenic	**7440-38-2**	**6020B**	**2.8**		**0.52**	**0.21**	**mg/kg**	**1**
Barium	**7440-39-3**	**6020B**	**150**		**1.3**	**0.32**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6020B**	**0.18**		**0.10**	**0.035**	**mg/kg**	**1**
Cadmium	**7440-43-9**	**6020B**	**0.058**	**J**	**0.13**	**0.026**	**mg/kg**	**1**
Calcium	**7440-70-2**	**6020B**	**230**		**100**	**31**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6020B**	**30**	**B**	**1.3**	**0.57**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6020B**	**18**		**1.3**	**0.31**	**mg/kg**	**1**
Copper	**7440-50-8**	**6020B**	**29**		**1.3**	**0.34**	**mg/kg**	**1**
Iron	**7439-89-6**	**6020B**	**47000**		**130**	**26**	**mg/kg**	**2**
Lead	**7439-92-1**	**6020B**	**13**		**0.26**	**0.070**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6020B**	**4300**		**100**	**26**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6020B**	**1000**		**13**	**3.7**	**mg/kg**	**2**
Mercury	**7439-97-6**	**7471B**	**0.053**	**J**	**0.090**	**0.022**	**mg/kg**	**1**
Nickel	**7440-02-0**	**6020B**	**26**		**1.3**	**0.31**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6020B**	**4600**		**100**	**26**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6020B**	**1.2**	**J**	**1.3**	**0.49**	**mg/kg**	**1**

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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and > DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-3 (2)**
Date Sampled: **05/07/2021 1450**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-003**
Matrix: **Solid**
% Solids: **87.8** **05/11/2021 0008**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1306	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1619	CMS2	05/12/2021 1545	92084
2	3050B	6020B	10	05/14/2021 1158	BNW	05/14/2021 0404	92127

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Silver	**7440-22-4**	**6020B**	**0.090**	J	**0.26**	**0.062**	**mg/kg**	**1**
Sodium	**7440-23-5**	**6020B**	**46**	J	**100**	**38**	**mg/kg**	**1**
Thallium	**7440-28-0**	**6020B**	**0.51**		**0.13**	**0.031**	**mg/kg**	**1**
Vanadium	**7440-62-2**	**6020B**	**53**		**1.3**	**0.26**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6020B**	**110**		**2.6**	**0.52**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-4 (5)**
Date Sampled: **05/07/2021 1500**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-004**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1258	JM1		92636	3.46

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		34	14	ug/kg	1
Benzene	71-43-2	8260D	ND		8.5	3.4	ug/kg	1
Bromodichloromethane	75-27-4	8260D	ND		8.5	3.4	ug/kg	1
Bromoform	75-25-2	8260D	ND		8.5	3.4	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		8.5	5.1	ug/kg	1
2-Butanone (MEK)	78-93-3	8260D	ND		34	6.8	ug/kg	1
Carbon disulfide	**75-15-0**	**8260D**	**9.1**		**8.5**	**3.4**	**ug/kg**	**1**
Carbon tetrachloride	56-23-5	8260D	ND		8.5	3.4	ug/kg	1
Chlorobenzene	108-90-7	8260D	ND		8.5	3.4	ug/kg	1
Chloroethane	75-00-3	8260D	ND		8.5	3.4	ug/kg	1
Chloroform	67-66-3	8260D	ND		8.5	3.4	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		8.5	5.1	ug/kg	1
Cyclohexane	**110-82-7**	**8260D**	**5.9**	**J**	**8.5**	**3.4**	**ug/kg**	**1**
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		8.5	3.4	ug/kg	1
Dibromochloromethane	124-48-1	8260D	ND		8.5	3.4	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		8.5	3.4	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		8.5	3.4	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		8.5	3.4	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		8.5	3.4	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260D	ND		8.5	5.1	ug/kg	1
1,1-Dichloroethane	75-34-3	8260D	ND		8.5	3.4	ug/kg	1
1,2-Dichloroethane	107-06-2	8260D	ND		8.5	3.4	ug/kg	1
1,1-Dichloroethene	75-35-4	8260D	ND		8.5	3.4	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		8.5	3.4	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		8.5	3.4	ug/kg	1
1,2-Dichloropropane	78-87-5	8260D	ND		8.5	3.4	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		8.5	3.4	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		8.5	3.4	ug/kg	1
Ethylbenzene	100-41-4	8260D	ND		8.5	3.4	ug/kg	1
2-Hexanone	591-78-6	8260D	ND		17	6.8	ug/kg	1
Isopropylbenzene	98-82-8	8260D	ND		8.5	3.4	ug/kg	1
Methyl acetate	79-20-9	8260D	ND		8.5	3.4	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		8.5	3.4	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		17	6.8	ug/kg	1
Methylcyclohexane	**108-87-2**	**8260D**	**14**		**8.5**	**3.4**	**ug/kg**	**1**
Methylene chloride	75-09-2	8260D	ND		8.5	3.4	ug/kg	1
Styrene	100-42-5	8260D	ND		8.5	3.4	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		8.5	3.4	ug/kg	1
Tetrachloroethene	127-18-4	8260D	ND		8.5	3.4	ug/kg	1
Toluene	**108-88-3**	**8260D**	**9.7**		**8.5**	**3.4**	**ug/kg**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-4 (3)**
Date Sampled: **05/07/2021 1500**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-004**
Matrix: **Solid**
% Solids: **85.4** 05/11/2021 0008

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1256	JM1		92836	3.46

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		8.5	3.4	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		8.5	3.4	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		8.5	3.4	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		8.5	3.4	ug/kg	1
Trichloroethene	79-01-6	8260D	ND		8.5	3.4	ug/kg	1
Trichlorofluoromethane	75-69-4	8260D	ND		8.5	3.4	ug/kg	1
Vinyl chloride	75-01-4	8260D	ND		8.5	5.1	ug/kg	1
Xylenes (total)	**1330-20-7**	**8260D**	**14**	**J**	**17**	**6.8**	**ug/kg**	**1**

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		72	47-139
1,2-Dichloroethane-d4		99	53-142
Toluene-d8		91	68-124

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	20	06/24/2021 1911	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		63	19	ug/kg	1
Acenaphthylene	208-96-8	8270E	ND		63	22	ug/kg	1
Acetophenone	98-86-2	8270E	ND		300	120	ug/kg	1
Anthracene	**120-12-7**	**8270E**	**89**		**63**	**12**	**ug/kg**	**1**
Atrazine	1912-24-9	8270E	ND		300	120	ug/kg	1
Benzaldehyde	100-52-7	8270E	ND		300	120	ug/kg	1
Benzo(a)anthracene	**56-55-3**	**8270E**	**190**		**63**	**14**	**ug/kg**	**1**
Benzo(a)pyrene	**50-32-8**	**8270E**	**190**		**63**	**15**	**ug/kg**	**1**
Benzo(b)fluoranthene	**205-99-2**	**8270E**	**280**		**63**	**12**	**ug/kg**	**1**
Benzo(g,h,i)perylene	**191-24-2**	**8270E**	**110**		**63**	**15**	**ug/kg**	**1**
Benzo(k)fluoranthene	**207-08-9**	**8270E**	**86**		**63**	**11**	**ug/kg**	**1**
1,1'-Biphenyl	92-52-4	8270E	ND		300	120	ug/kg	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		300	120	ug/kg	1
Butyl benzyl phthalate	85-68-7	8270E	ND		300	120	ug/kg	1
Caprolactam	105-60-2	8270E	ND		300	120	ug/kg	1
Carbazole	86-74-8	8270E	ND		300	120	ug/kg	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		300	120	ug/kg	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		300	120	ug/kg	1
4-Chloroaniline	106-47-8	8270E	ND		300	120	ug/kg	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		300	120	ug/kg	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Burnell-Lammons Engineering, Inc.**
Description: **B-4 (5)**
Date Sampled: **05/07/2021 1500**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-004**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	20	05/24/2021 1911	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		300	120	ug/kg	1
2-Chloronaphthalene	91-58-7	8270E	ND		300	120	ug/kg	1
2-Chlorophenol	95-57-8	8270E	ND		300	120	ug/kg	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		300	120	ug/kg	1
Chrysene	**218-01-9**	**8270E**	**260**		**63**	**10**	**ug/kg**	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		63	12	ug/kg	1
Dibenzofuran	**132-64-9**	**8270E**	**310**		**300**	**120**	**ug/kg**	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		300	120	ug/kg	1
2,4-Dichlorophenol	120-83-2	8270E	ND		300	120	ug/kg	1
Diethylphthalate	84-66-2	8270E	ND		300	120	ug/kg	1
Dimethyl phthalate	131-11-3	8270E	ND		300	170	ug/kg	1
2,4-Dimethylphenol	105-67-9	8270E	ND		300	120	ug/kg	1
Di-n-butyl phthalate	84-74-2	8270E	ND		300	120	ug/kg	1
4,6-Dinitro-2-methyl phenol	534-52-1	8270E	ND		1600	580	ug/kg	1
2,4-Dinitrophenol	51-28-5	8270E	ND	L	1600	580	ug/kg	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		630	230	ug/kg	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		630	230	ug/kg	1
Di-n-octylphthalate	117-84-0	8270E	ND		300	120	ug/kg	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270E	ND		1600	580	ug/kg	1
Fluoranthene	**206-44-0**	**8270E**	**350**		**63**	**9.8**	**ug/kg**	1
Fluorene	86-73-7	8270E	ND		63	13	ug/kg	1
Hexachlorobenzene	118-74-1	8270E	ND		300	120	ug/kg	1
Hexachlorobutadiene	87-68-3	8270E	ND		300	120	ug/kg	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		1600	580	ug/kg	1
Hexachloroethane	67-72-1	8270E	ND		300	120	ug/kg	1
Indeno(1,2,3-c,d)pyrene	**193-39-5**	**8270E**	**63**		**63**	**23**	**ug/kg**	1
Isophorone	78-59-1	8270E	ND		300	120	ug/kg	1
2-Methylnaphthalene	**91-57-6**	**8270E**	**1600**		**63**	**23**	**ug/kg**	1
2-Methylphenol	95-48-7	8270E	ND		300	120	ug/kg	1
3+4-Methylphenol	106-44-5	8270E	ND		630	230	ug/kg	1
Naphthalene	**91-20-3**	**8270E**	**980**		**63**	**23**	**ug/kg**	1
2-Nitroaniline	88-74-4	8270E	ND		630	230	ug/kg	1
3-Nitroaniline	99-09-2	8270E	ND		630	230	ug/kg	1
4-Nitroaniline	100-01-6	8270E	ND		630	230	ug/kg	1
Nitrobenzene	98-95-3	8270E	ND		300	120	ug/kg	1
2-Nitrophenol	88-75-5	8270E	ND		630	230	ug/kg	1
4-Nitrophenol	100-02-7	8270E	ND		1600	580	ug/kg	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND		300	120	ug/kg	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		300	120	ug/kg	1
Pentachlorophenol	87-86-5	8270E	ND		1600	580	ug/kg	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
D = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and > DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-4 (5)**
Date Sampled: **05/07/2021 1500**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-004**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	20	05/24/2021 1911	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Phenanthrene	**85-01-8**	**8270E**	**920**		**63**	17	**ug/kg**	1
Phenol	108-95-2	8270E	ND		300	120	ug/kg	1
Pyrene	**129-00-0**	**8270E**	**310**		**63**	12	**ug/kg**	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		300	120	ug/kg	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		300	120	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		75	33-102
2-Fluorophenol		47	35-115
Nitrobenzene-d5		72	22-109
Phenol-d5		58	33-122
Terphenyl-d14		71	41-120
2,4,6-Tribromophenol		82	30-117

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1226	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1627	CMS2	05/12/2021 1545	92064

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6020B**	**7600**		**11**	**2.7**	**mg/kg**	1
Antimony	**7440-36-0**	**6020B**	**1.6**		**0.54**	**0.22**	**mg/kg**	1
Arsenic	**7440-38-2**	**6020B**	**7.5**		**0.54**	**0.22**	**mg/kg**	1
Barium	**7440-39-3**	**6020B**	**490**		**1.4**	**0.34**	**mg/kg**	1
Beryllium	**7440-41-7**	**6020B**	**0.32**		**0.11**	**0.037**	**mg/kg**	1
Cadmium	**7440-43-9**	**6020B**	**0.18**		**0.14**	**0.027**	**mg/kg**	1
Calcium	**7440-70-2**	**6020B**	**18000**		**110**	**33**	**mg/kg**	1
Chromium	**7440-47-3**	**6020B**	**10**	**B**	**1.4**	**0.60**	**mg/kg**	1
Cobalt	**7440-48-4**	**6020B**	**4.9**		**1.4**	**0.33**	**mg/kg**	1
Copper	**7440-50-8**	**6020B**	**410**		**1.4**	**0.35**	**mg/kg**	1
Iron	**7439-89-6**	**6020B**	**15000**		14	**2.7**	**mg/kg**	1
Lead	**7439-92-1**	**6020B**	**55**		0.27	**0.074**	**mg/kg**	1
Magnesium	**7439-95-4**	**6020B**	**1000**		**110**	**27**	**mg/kg**	1
Manganese	**7439-96-5**	**6020B**	**380**		**1.4**	**0.39**	**mg/kg**	1
Mercury	**7439-97-6**	**7471B**	**0.089**	**J**	**0.094**	**0.023**	**mg/kg**	1
Nickel	**7440-02-0**	**6020B**	**13**		**1.4**	**0.33**	**mg/kg**	1
Potassium	**7440-09-7**	**6020B**	**980**		**110**	**27**	**mg/kg**	1
Selenium	**7782-49-2**	**6020B**	**1.5**		**1.4**	**0.51**	**mg/kg**	1
Silver	7440-22-4	6020B	ND		0.27	0.065	mg/kg	1

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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-4 (5)**
Date Sampled: **05/07/2021 1500**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-004**
Matrix: **Solid**
% Solids: **85.4** **05/11/2021 0008**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1226	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1627	CMS2	05/12/2021 1545	92084

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Sodium	**7440-23-5**	**6020B**	**140**		**110**	**40**	**mg/kg**	**1**
Thallium	**7440-28-0**	**6020B**	**0.16**		**0.14**	**0.033**	**mg/kg**	**1**
Vanadium	**7440-62-2**	**6020B**	**22**		**1.4**	**0.27**	**mg/kg**	**1**
Zinc	**7440-66-6**	**6020B**	**70**		**2.7**	**0.54**	**mg/kg**	**1**

LOQ = Limit of Quantitation
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DL = Detection Limit
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L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-5 (2)**
Date Sampled: **05/07/2021 1510**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-005**
Matrix: **Solid**
% Solids: **82.6** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/18/2021 1321	JM1		92636	6.24

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		19	7.8	ug/kg	1
Benzene	71-43-2	8260D	ND		4.9	1.9	ug/kg	1
Bromodichloromethane	75-27-4	8260D	ND		4.9	1.9	ug/kg	1
Bromoform	75-25-2	8260D	ND		4.9	1.9	ug/kg	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		4.9	2.9	ug/kg	1
2-Butanone (MEK)	78-93-3	8260D	ND		19	3.9	ug/kg	1
Carbon disulfide	75-15-0	8260D	ND		4.9	1.9	ug/kg	1
Carbon tetrachloride	56-23-5	8260D	ND		4.9	1.9	ug/kg	1
Chlorobenzene	108-90-7	8260D	ND		4.9	1.9	ug/kg	1
Chloroethane	75-00-3	8260D	ND		4.9	1.9	ug/kg	1
Chloroform	67-66-3	8260D	ND		4.9	1.9	ug/kg	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		4.9	2.9	ug/kg	1
Cyclohexane	110-82-7	8260D	ND		4.9	1.9	ug/kg	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		4.9	1.9	ug/kg	1
Dibromochloromethane	124-48-1	8260D	ND		4.9	1.9	ug/kg	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		4.9	1.9	ug/kg	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		4.9	1.9	ug/kg	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		4.9	1.9	ug/kg	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		4.9	1.9	ug/kg	1
Dichlorodifluoromethane	75-71-8	8260D	ND		4.9	2.9	ug/kg	1
1,1-Dichloroethane	75-34-3	8260D	ND		4.9	1.9	ug/kg	1
1,2-Dichloroethane	107-06-2	8260D	ND		4.9	1.9	ug/kg	1
1,1-Dichloroethene	75-35-4	8260D	ND		4.9	1.9	ug/kg	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		4.9	1.9	ug/kg	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		4.9	1.9	ug/kg	1
1,2-Dichloropropane	78-87-5	8260D	ND		4.9	1.9	ug/kg	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		4.9	1.9	ug/kg	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		4.9	1.9	ug/kg	1
Ethylbenzene	100-41-4	8260D	ND		4.9	1.9	ug/kg	1
2-Hexanone	591-78-6	8260D	ND		9.7	3.9	ug/kg	1
Isopropylbenzene	98-82-8	8260D	ND		4.9	1.9	ug/kg	1
Methyl acetate	79-20-9	8260D	ND		4.9	1.9	ug/kg	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		4.9	1.9	ug/kg	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		9.7	3.9	ug/kg	1
Methylcyclohexane	108-87-2	8260D	ND		4.9	1.9	ug/kg	1
Methylene chloride	75-09-2	8260D	ND		4.9	1.9	ug/kg	1
Styrene	100-42-5	8260D	ND		4.9	1.9	ug/kg	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		4.9	1.9	ug/kg	1
Tetrachloroethene	127-18-4	8260D	ND		4.9	1.9	ug/kg	1
Toluene	108-88-3	8260D	ND		4.9	1.9	ug/kg	1

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ND = Not detected at or above the DL
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J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
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S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-5 (2)**
Date Sampled: **05/07/2021 1510**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-005**
Matrix: **Solid**
% Solids: **82.6** **05/11/2021 0008**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch	Sample Wt.(g)
1	5035	8260D	1	05/10/2021 1321	JM1		92636	8.24

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		4.9	1.9	ug/kg	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		4.9	1.9	ug/kg	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		4.9	1.9	ug/kg	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		4.9	1.9	ug/kg	1
Trichloroethene	79-01-6	8260D	ND		4.9	1.9	ug/kg	1
Trichlorofluoromethane	75-69-4	8260D	ND		4.9	1.9	ug/kg	1
Vinyl chloride	75-01-4	8260D	ND		4.9	2.9	ug/kg	1
Xylenes (total)	1330-20-7	8260D	ND		9.7	3.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		112	47-138
1,2-Dichloroethane-d4		102	53-142
Toluene-d8		105	68-124

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	1	06/24/2021 1936	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		3.2	0.97	ug/kg	1
Acenaphthylene	208-96-8	8270E	ND		3.2	1.1	ug/kg	1
Acetophenone	98-86-2	8270E	ND		15	5.9	ug/kg	1
Anthracene	120-12-7	8270E	ND		3.2	0.60	ug/kg	1
Atrazine	1912-24-9	8270E	ND		15	5.9	ug/kg	1
Benzaldehyde	100-52-7	8270E	ND		15	5.9	ug/kg	1
Benzo(a)anthracene	56-55-3	8270E	ND		3.2	0.69	ug/kg	1
Benzo(a)pyrene	50-32-8	8270E	ND		3.2	0.77	ug/kg	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		3.2	0.59	ug/kg	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		3.2	0.78	ug/kg	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		3.2	0.56	ug/kg	1
1,1'-Biphenyl	92-52-4	8270E	ND		15	5.9	ug/kg	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		15	5.9	ug/kg	1
Butyl benzyl phthalate	85-68-7	8270E	ND		15	5.9	ug/kg	1
Caprolactam	105-60-2	8270E	ND		15	5.9	ug/kg	1
Carbazole	86-74-8	8270E	ND		15	5.9	ug/kg	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		15	5.9	ug/kg	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		15	5.9	ug/kg	1
4-Chloroaniline	106-47-8	8270E	ND		15	5.9	ug/kg	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		15	5.9	ug/kg	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
I = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-5 (2)**
Date Sampled: **05/07/2021 1510**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-005**
Matrix: **Solid**
% Solids: **82.6** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	1	05/24/2021 1936	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		15	5.9	ug/kg	1
2-Chloronaphthalene	91-58-7	8270E	ND		15	5.9	ug/kg	1
2-Chlorophenol	95-57-8	8270E	ND		15	5.9	ug/kg	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		15	5.9	ug/kg	1
Chrysene	218-01-9	8270E	ND		3.2	0.53	ug/kg	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		3.2	0.60	ug/kg	1
Dibenzofuran	132-64-9	8270E	ND		15	5.9	ug/kg	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		15	5.9	ug/kg	1
2,4-Dichlorophenol	120-83-2	8270E	ND		15	5.9	ug/kg	1
Diethylphthalate	84-66-2	8270E	ND		15	5.9	ug/kg	1
Dimethyl phthalate	131-11-3	8270E	ND		15	8.7	ug/kg	1
2,4-Dimethylphenol	105-67-9	8270E	ND		15	5.9	ug/kg	1
Di-n-butyl phthalate	84-74-2	8270E	ND		15	5.9	ug/kg	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		78	29	ug/kg	1
2,4-Dinitrophenol	51-28-5	8270E	ND	L	78	29	ug/kg	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		32	12	ug/kg	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		32	12	ug/kg	1
Di-n-octylphthalate	117-84-0	8270E	ND		15	5.9	ug/kg	1
bis(2-Ethylhexyl)phthalate	117-81-7	8270E	ND		78	29	ug/kg	1
Fluoranthene	206-44-0	8270E	ND		3.2	0.49	ug/kg	1
Fluorene	86-73-7	8270E	ND		3.2	0.67	ug/kg	1
Hexachlorobenzene	118-74-1	8270E	ND		15	5.9	ug/kg	1
Hexachlorobutadiene	87-68-3	8270E	ND		15	5.9	ug/kg	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		78	29	ug/kg	1
Hexachloroethane	67-72-1	8270E	ND		15	5.9	ug/kg	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		3.2	1.2	ug/kg	1
Isophorone	78-59-1	8270E	ND		15	5.9	ug/kg	1
2-Methylnaphthalene	91-57-6	8270E	ND		3.2	1.2	ug/kg	1
2-Methylphenol	95-48-7	8270E	ND		15	5.9	ug/kg	1
3+4-Methylphenol	106-44-5	8270E	ND		32	12	ug/kg	1
Naphthalene	91-20-3	8270E	ND		3.2	1.1	ug/kg	1
2-Nitroaniline	88-74-4	8270E	ND		32	12	ug/kg	1
3-Nitroaniline	99-09-2	8270E	ND		32	12	ug/kg	1
4-Nitroaniline	100-01-6	8270E	ND		32	12	ug/kg	1
Nitrobenzene	98-95-3	8270E	ND		15	5.9	ug/kg	1
2-Nitrophenol	88-75-5	8270E	ND		32	12	ug/kg	1
4-Nitrophenol	100-02-7	8270E	ND		78	29	ug/kg	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND		15	5.9	ug/kg	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		15	5.9	ug/kg	1
Pentachlorophenol	87-86-5	8270E	ND		78	29	ug/kg	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and > DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **B-5 (2)**
Date Sampled: **05/07/2021 1510**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-005**
Matrix: **Solid**
% Solids: **82.6** **05/11/2021 0008**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3546	8270E	1	05/24/2021 1936	STM	05/11/2021 2048	91939

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Phenanthrene	85-01-8	8270E	ND		3.2	0.84	ug/kg	1
Phenol	108-95-2	8270E	ND		15	5.9	ug/kg	1
Pyrene	129-00-0	8270E	ND		3.2	0.58	ug/kg	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		15	5.9	ug/kg	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		15	5.9	ug/kg	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		76	33-102
2-Fluorophenol		80	35-115
Nitrobenzene-d5		72	22-109
Phenol-d5		81	33-122
Terphenyl-d14		74	41-120
2,4,6-Tribromophenol		92	30-117

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1312	BNW	06/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1629	CMS2	06/12/2021 1515	92084

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Aluminum	**7429-90-5**	**6020B**	**31000**		**10**	**2.6**	**mg/kg**	**1**
Antimony	7440-36-0	6020B	ND		0.52	0.21	mg/kg	1
Arsenic	**7440-38-2**	**6020B**	**1.8**		**0.52**	**0.21**	**mg/kg**	**1**
Barium	**7440-39-3**	**6020B**	**120**		**1.3**	**0.32**	**mg/kg**	**1**
Beryllium	**7440-41-7**	**6020B**	**0.41**		**0.10**	**0.035**	**mg/kg**	**1**
Cadmium	7440-43-9	6020B	ND		0.14	0.026	mg/kg	1
Calcium	**7440-70-2**	**6020B**	**180**		**100**	**31**	**mg/kg**	**1**
Chromium	**7440-47-3**	**6020B**	**19**	**B**	**1.3**	**0.58**	**mg/kg**	**1**
Cobalt	**7440-48-4**	**6020B**	**8.4**		**1.3**	**0.31**	**mg/kg**	**1**
Copper	**7440-50-8**	**6020B**	**11**		**1.3**	**0.34**	**mg/kg**	**1**
Iron	**7439-89-6**	**6020B**	**29000**		**14**	**2.6**	**mg/kg**	**1**
Lead	**7439-92-1**	**6020B**	**12**		**0.26**	**0.071**	**mg/kg**	**1**
Magnesium	**7439-95-4**	**6020B**	**2800**		**100**	**26**	**mg/kg**	**1**
Manganese	**7439-96-5**	**6020B**	**170**		**1.3**	**0.38**	**mg/kg**	**1**
Mercury	7439-97-6	7471B	ND		0.090	0.022	mg/kg	1
Nickel	**7440-02-0**	**6020B**	**12**		**1.3**	**0.31**	**mg/kg**	**1**
Potassium	**7440-09-7**	**6020B**	**4600**		**100**	**26**	**mg/kg**	**1**
Selenium	**7782-49-2**	**6020B**	**0.67**	**J**	**1.3**	**0.49**	**mg/kg**	**1**
Silver	7440-22-4	6020B	ND		0.26	0.063	mg/kg	1

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J = estimated result < LOQ and > DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: Bunnell-Lammons Engineering, Inc.
Description: B-5 (2)
Date Sampled: 05/07/2021 1510
Date Received: 05/10/2021

Laboratory ID: WE10034-005
Matrix: Solid
% Solids: 82.6 05/11/2021 0008

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3050B	6020B	1	05/14/2021 1312	BNW	05/14/2021 0404	92127
1	7471B	7471B	1	05/13/2021 1629	CMS2	05/12/2021 1545	92064

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Sodium	7440-23-5	6020B	ND		100	38	mg/kg	1
Thallium	7440-28-0	6020B	0.44		0.18	0.031	mg/kg	1
Vanadium	7440-62-2	6020B	41		1.3	0.26	mg/kg	1
Zinc	7440-66-6	6020B	50		2.6	0.52	mg/kg	1

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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-1**
Date Sampled: **06/07/2021 1300**
Date Received: **06/10/2021**

Laboratory ID: **WE19034-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	06/16/2021 1954	JDF		92459
3	5030B	8260D	1	06/20/2021 0230	CJL2		92661

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	3
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-1**
Date Sampled: **05/07/2021 1300**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-006**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 1954	JDF		92459
3	5030B	8260D	1	05/20/2021 0230	CJL2		92881

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 3 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130		96	70-130
1,2-Dichloroethane-d4		89	70-130		108	70-130
Toluene-d8		96	70-130		106	70-130

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1633	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		0.16	0.040	ug/L	1
Acenaphthylene	208-96-8	8270E	ND		0.16	0.040	ug/L	1
Acetophenone	98-86-2	8270E	ND		0.80	0.23	ug/L	1
Anthracene	120-12-7	8270E	ND		0.16	0.040	ug/L	1
Atrazine	1912-24-9	8270E	ND		0.80	0.20	ug/L	1
Benzaldehyde	100-52-7	8270E	ND		4.0	0.27	ug/L	1
Benzo(a)anthracene	56-55-3	8270E	ND		0.16	0.040	ug/L	1
Benzo(a)pyrene	50-32-8	8270E	ND		0.16	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		0.16	0.040	ug/L	1
1,1'-Biphenyl	92-52-4	8270E	ND		0.80	0.21	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		0.80	0.16	ug/L	1
Butyl benzyl phthalate	85-68-7	8270E	ND		4.0	0.21	ug/L	1
Caprolactam	105-60-2	8270E	ND		4.0	0.71	ug/L	1
Carbazole	86-74-8	8270E	ND	L	0.80	0.040	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		0.80	0.17	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		0.80	0.26	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
C = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result; < LOQ and > DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-1**
Date Sampled: **05/07/2021 1300**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-006**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1633	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
4-Chloroaniline	106-47-8	8270E	ND		0.80	0.13	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		0.80	0.060	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		0.80	0.16	ug/L	1
2-Chloronaphthalene	91-58-7	8270E	ND		0.80	0.15	ug/L	1
2-Chlorophenol	95-57-8	8270E	ND		0.80	0.15	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		0.80	0.18	ug/L	1
Chrysene	218-01-9	8270E	ND		0.16	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		0.16	0.040	ug/L	1
Dibenzofuran	132-64-9	8270E	ND		0.80	0.16	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		4.0	0.81	ug/L	1
2,4-Dichlorophenol	120-83-2	8270E	ND		0.80	0.19	ug/L	1
Diethylphthalate	**84-66-2**	**8270E**	**0.35**	**J**	**4.0**	**0.19**	**ug/L**	**1**
Dimethyl phthalate	131-11-3	8270E	ND		4.0	0.16	ug/L	1
2,4-Dimethylphenol	105-67-9	8270E	ND		0.80	0.15	ug/L	1
Di-n-butyl phthalate	84-74-2	8270E	ND		4.0	0.42	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		4.0	0.89	ug/L	1
2,4-Dinitrophenol	51-28-5	8270E	ND		4.0	1.9	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		1.6	0.36	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		1.6	0.34	ug/L	1
Di-n-octylphthalate	117-84-0	8270E	ND		4.0	0.48	ug/L	1
bis(2-Ethylhexyl)phthalate	**117-81-7**	**8270E**	**0.72**	**BJL**	**4.0**	**0.38**	**ug/L**	**1**
Fluoranthene	206-44-0	8270E	ND		0.16	0.040	ug/L	1
Fluorene	86-73-7	8270E	ND		0.16	0.040	ug/L	1
Hexachlorobenzene	118-74-1	8270E	ND		0.80	0.15	ug/L	1
Hexachlorobutadiene	87-68-3	8270E	ND		0.80	0.17	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		4.0	1.1	ug/L	1
Hexachloroethane	67-72-1	8270E	ND		0.80	0.17	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		0.16	0.040	ug/L	1
Isophorone	78-59-1	8270E	ND	L	0.80	0.22	ug/L	1
2-Methylnaphthalene	91-57-6	8270E	ND		0.16	0.040	ug/L	1
2-Methylphenol	95-48-7	8270E	ND		0.80	0.21	ug/L	1
3+4-Methylphenol	106-44-5	8270E	ND		1.6	0.46	ug/L	1
Naphthalene	91-20-3	8270E	ND		0.16	0.040	ug/L	1
2-Nitroaniline	88-74-4	8270E	ND		1.6	0.66	ug/L	1
3-Nitroaniline	99-09-2	8270E	ND		1.6	0.16	ug/L	1
4-Nitroaniline	100-01-6	8270E	ND		1.6	1.3	ug/L	1
Nitrobenzene	98-95-3	8270E	ND		0.80	0.17	ug/L	1
2-Nitrophenol	88-75-5	8270E	ND		1.6	0.44	ug/L	1
4-Nitrophenol	100-02-7	8270E	ND		4.0	2.1	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND	L	0.80	0.26	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The %D between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-1**
Date Sampled: **05/07/2021 1300**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-008**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1633	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		0.80	0.50	ug/L	1
Pentachlorophenol	87-86-5	8270E	ND		4.0	1.3	ug/L	1
Phenanthrene	85-01-8	8270E	ND		0.16	0.040	ug/L	1
Phenol	108-95-2	8270E	ND		0.80	0.19	ug/L	1
Pyrene	129-00-0	8270E	ND		0.16	0.040	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		0.80	0.19	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		0.80	0.22	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		89	37-129
2-Fluorophenol		36	24-127
Nitrobenzene-d5		67	38-127
Phenol-d5		54	28-126
Terphenyl-d14		83	10-148
2,4,6-Tribromophenol		52	35-144

CVAA

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	05/13/2021 1824	CMS2	05/13/2021 1224	92149

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Mercury	7439-97-6	7470A	ND		0.00020	0.000091	mg/L	1

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1846	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2007	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Aluminum	7429-90-5	6020B	ND		40	10	ug/L	1
Dissolved Antimony	7440-36-0	6020B	ND		2.0	0.50	ug/L	1
Dissolved Arsenic	7440-38-2	6020B	ND		2.0	1.3	ug/L	1
Dissolved Barium	**7440-39-3**	**6020B**	**73**		**5.0**	**1.3**	**ug/L**	1
Dissolved Cadmium	7440-43-9	6020B	ND		0.50	0.13	ug/L	1
Dissolved Calcium	**7440-70-2**	**6020B**	**50000**	**S**	**4000**	**1000**	**ug/L**	2
Dissolved Chromium	7440-47-3	6020B	ND		5.0	1.3	ug/L	1
Dissolved Cobalt	7440-48-4	6020B	ND		5.0	1.3	ug/L	1
Dissolved Copper	7440-50-8	6020B	ND		5.0	1.3	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: Bunnell-Lammons Engineering, Inc.
Description: **GW-1**
Date Sampled: **05/07/2021 1300**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-006**
Matrix: **Aqueous**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1846	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2007	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Iron	**7439-89-6**	**6020B**	**13**	**J**	**50**	**13**	ug/L	1
Dissolved Lead	7439-92-1	6020B	ND		1.0	0.25	ug/L	1
Dissolved Magnesium	**7439-95-4**	**6020B**	**6000**		**400**	**50**	**ug/L**	**1**
Dissolved Manganese	**7439-96-5**	**6020B**	**150**		**5.0**	**1.3**	**ug/L**	**1**
Dissolved Nickel	**7440-02-0**	**6020B**	**2.0**	**J**	**5.0**	**1.3**	**ug/L**	**1**
Dissolved Potassium	**7440-09-7**	**6020B**	**5900**		**400**	**100**	**ug/L**	**1**
Dissolved Selenium	7782-49-2	6020B	ND		5.0	1.3	ug/L	1
Dissolved Silver	7440-22-4	6020B	ND		1.0	0.25	ug/L	1
Dissolved Sodium	**7440-23-5**	**6020B**	**3400**		**400**	**150**	**ug/L**	**1**
Dissolved Thallium	7440-28-0	6020B	ND		0.50	0.15	ug/L	1
Dissolved Vanadium	7440-62-2	6020B	ND		5.0	2.5	ug/L	1
Dissolved Zinc	7440-66-6	6020B	ND		10	2.5	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-2**
Date Sampled: **05/07/2021 1000**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2016	JDF		92459
3	5030B	8260D	1	05/20/2021 0254	CJL2		92801

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	**75-15-0**	**8260D**	**0.42**	**J**	**1.0**	**0.40**	**ug/L**	**1**
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	3
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
J1 = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
+ = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-2**
Date Sampled: **05/07/2021 1000**
Date Received: **05/10/2021**

Laboratory ID: **WE10084-007**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2016	JDF		92459
3	5030B	8260D	1	05/20/2021 0254	CJL2		92681

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 3 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130		95	70-130
1,2-Dichloroethane-d4		84	70-130		108	70-130
Toluene-d8		96	70-130		106	70-130

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/18/2021 1657	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		0.16	0.040	ug/L	1
Acenaphthylene	208-96-8	8270E	ND		0.16	0.040	ug/L	1
Acetophenone	98-86-2	8270E	ND		0.80	0.23	ug/L	1
Anthracene	120-12-7	8270E	ND		0.16	0.040	ug/L	1
Atrazine	1912-24-9	8270E	ND		0.80	0.20	ug/L	1
Benzaldehyde	100-52-7	8270E	ND		4.0	0.27	ug/L	1
Benzo(a)anthracene	56-55-3	8270E	ND		0.16	0.040	ug/L	1
Benzo(a)pyrene	50-32-8	8270E	ND		0.16	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		0.16	0.040	ug/L	1
1,1'-Biphenyl	92-52-4	8270E	ND		0.80	0.21	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		0.80	0.15	ug/L	1
Butyl benzyl phthalate	85-68-7	8270E	ND		4.0	0.21	ug/L	1
Caprolactam	105-60-2	8270E	ND		4.0	0.71	ug/L	1
Carbazole	86-74-8	8270E	ND	L	0.80	0.040	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		0.80	0.17	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		0.80	0.26	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of component exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
. = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-2**
Date Sampled: **05/07/2021 1000**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-007**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1657	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
4-Chloroaniline	106-47-8	8270E	ND		0.80	0.13	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		0.80	0.060	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		0.80	0.16	ug/L	1
2-Chloronaphthalene	91-58-7	8270E	ND		0.80	0.15	ug/L	1
2-Chlorophenol	95-57-8	8270E	ND		0.80	0.15	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		0.80	0.16	ug/L	1
Chrysene	218-01-9	8270E	ND		0.16	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		0.16	0.040	ug/L	1
Dibenzofuran	132-64-9	8270E	ND		0.80	0.16	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		4.0	0.81	ug/L	1
2,4-Dichlorophenol	120-83-2	8270E	ND		0.80	0.19	ug/L	1
Diethylphthalate	**84-66-2**	**8270E**	**0.41**	**J**	**4.0**	**0.19**	**ug/L**	**1**
Dimethyl phthalate	131-11-3	8270E	ND		4.0	0.18	ug/L	1
2,4-Dimethylphenol	105-67-9	8270E	ND		0.80	0.15	ug/L	1
Di-n-butyl phthalate	84-74-2	8270E	ND		4.0	0.42	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		4.0	0.89	ug/L	1
2,4-Dinitrophenol	51-28-5	8270E	ND		4.0	1.3	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		1.6	0.38	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		1.6	0.34	ug/L	1
Di-n-octylphthalate	117-84-0	8270E	ND		4.0	0.48	ug/L	1
bis(2-Ethylhexyl)phthalate	**117-81-7**	**8270E**	**1.4**	**BJL**	**4.0**	**0.38**	**ug/L**	**1**
Fluoranthene	206-44-0	8270E	ND		0.16	0.040	ug/L	1
Fluorene	86-73-7	8270E	ND		0.16	0.040	ug/L	1
Hexachlorobenzene	118-74-1	8270E	ND		0.80	0.15	ug/L	1
Hexachlorobutadiene	87-68-3	8270E	ND		0.80	0.17	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		4.0	1.1	ug/L	1
Hexachloroethane	67-72-1	8270E	ND		0.80	0.17	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		0.16	0.040	ug/L	1
Isophorone	78-59-1	8270E	ND	L	0.80	0.22	ug/L	1
2-Methylnaphthalene	91-57-6	8270E	ND		0.16	0.040	ug/L	1
2-Methylphenol	95-48-7	8270E	ND		0.80	0.21	ug/L	1
3+4-Methylphenol	106-44-5	8270E	ND		1.6	0.46	ug/L	1
Naphthalene	91-20-3	8270E	ND		0.16	0.040	ug/L	1
2-Nitroaniline	88-74-4	8270E	ND		1.6	0.66	ug/L	1
3-Nitroaniline	99-09-2	8270E	ND		1.6	0.15	ug/L	1
4-Nitroaniline	100-01-6	8270E	ND		1.6	1.3	ug/L	1
Nitrobenzene	98-95-3	8270E	ND		0.80	0.17	ug/L	1
2-Nitrophenol	88-75-5	8270E	ND		1.6	0.44	ug/L	1
4-Nitrophenol	100-02-7	8270E	ND		4.0	2.1	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND	L	0.80	0.28	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-2**
Date Sampled: **05/07/2021 1000**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-007**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1657	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		0.80	0.50	ug/L	1
Pentachlorophenol	87-86-5	8270E	ND		4.0	1.3	ug/L	1
Phenanthrene	85-01-8	8270E	ND		0.16	0.040	ug/L	1
Phenol	108-95-2	8270E	ND		0.80	0.19	ug/L	1
Pyrene	129-00-0	8270E	ND		0.16	0.040	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		0.80	0.19	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		0.80	0.22	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		33	24-127
Nitrobenzene-d5		70	38-127
Phenol-d5		61	28-128
Terphenyl-d14		68	10-148
2,4,6-Tribromophenol		57	35-144

CVAA

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	05/13/2021 1827	CMS2	05/13/2021 1224	92149

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Mercury	7439-97-6	7470A	ND		0.00020	0.000091	mg/L	1

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1923	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2045	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Aluminum	**7429-90-5**	**6020B**	**170**		**40**	**10**	**ug/L**	**1**
Dissolved Antimony	**7440-36-0**	**6020B**	**1.1**	**J**	**2.0**	**0.50**	**ug/L**	**1**
Dissolved Arsenic	7440-38-2	6020B	ND		2.0	1.3	ug/L	1
Dissolved Barium	**7440-39-3**	**6020B**	**49**		**5.0**	**1.3**	**ug/L**	**1**
Dissolved Cadmium	7440-43-9	6020B	ND		0.50	0.13	ug/L	1
Dissolved Calcium	**7440-70-2**	**6020B**	**87000**		**4000**	**1000**	**ug/L**	**2**
Dissolved Chromium	7440-47-3	6020B	ND		5.0	1.3	ug/L	1
Dissolved Cobalt	**7440-48-4**	**6020B**	**3.3**	**J**	**5.0**	**1.3**	**ug/L**	**1**
Dissolved Copper	7440-50-8	6020B	ND		5.0	1.3	ug/L	1

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Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-2**
Date Sampled: **05/07/2021 1000**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-007**
Matrix: **Aqueous**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1923	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2045	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Iron	**7439-89-6**	**6020B**	**1600**		**50**	**13**	**ug/L**	**1**
Dissolved Lead	7439-92-1	6020B	ND		1.0	0.25	ug/L	1
Dissolved Magnesium	**7439-95-4**	**6020B**	**24000**		**400**	**50**	**ug/L**	**1**
Dissolved Manganese	**7439-96-5**	**6020B**	**1100**		**50**	**13**	**ug/L**	**2**
Dissolved Nickel	**7440-02-0**	**6020B**	**1.8**	**J**	**5.0**	**1.3**	**ug/L**	**1**
Dissolved Potassium	**7440-09-7**	**6020B**	**4400**		**400**	**100**	**ug/L**	**1**
Dissolved Selenium	7782-49-2	6020B	ND		5.0	1.3	ug/L	1
Dissolved Silver	7440-22-4	6020B	ND		1.0	0.25	ug/L	1
Dissolved Sodium	**7440-23-5**	**6020B**	**5700**		**400**	**150**	**ug/L**	**1**
Dissolved Thallium	7440-28-0	6020B	ND		0.50	0.15	ug/L	1
Dissolved Vanadium	7440-62-2	6020B	ND		5.0	2.5	ug/L	1
Dissolved Zinc	7440-66-6	6020B	ND		10	2.5	ug/L	1

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S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-3**
Date Sampled: **05/07/2021 1130**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-008**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2038	JDF		92459
3	5030B	8260D	1	05/20/2021 0319	CJL2		92881

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	3
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1

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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
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L = LCS/LCSD failure
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Client: Bunnell-Lammons Engineering, Inc.
Description: GW-3
Date Sampled: 05/07/2021 1130
Date Received: 05/10/2021

Laboratory ID: WE10034-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2038	JDF		92459
3	5030B	8260D	1	05/20/2021 0319	CJL2		92881

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 3 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130		102	70-130
1,2-Dichloroethane-d4		88	70-130		110	70-130
Toluene-d8		99	70-130		109	70-130

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1722	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		0.16	0.040	ug/L	1
Acenaphthylene	208-96-8	8270E	ND		0.16	0.040	ug/L	1
Acetophenone	98-86-2	8270E	ND		0.80	0.23	ug/L	1
Anthracene	120-12-7	8270E	ND		0.16	0.040	ug/L	1
Atrazine	1912-24-9	8270E	ND		0.80	0.20	ug/L	1
Benzaldehyde	100-52-7	8270E	ND		4.0	0.27	ug/L	1
Benzo(a)anthracene	56-55-3	8270E	ND		0.16	0.040	ug/L	1
Benzo(a)pyrene	50-32-8	8270E	ND		0.16	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		0.16	0.040	ug/L	1
1,1-Biphenyl	92-52-4	8270E	ND		0.80	0.21	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		0.80	0.15	ug/L	1
Butyl benzyl phthalate	85-68-7	8270E	ND		4.0	0.21	ug/L	1
Caprolactam	105-60-2	8270E	ND		4.0	0.71	ug/L	1
Carbazole	86-74-8	8270E	ND	L	0.80	0.040	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		0.80	0.17	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		0.80	0.26	ug/L	1

LOQ = Limit of Quantitation
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L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-3**
Date Sampled: **05/07/2021 1130**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-008**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1722	STN	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
4-Chloroaniline	106-47-8	8270E	ND		0.80	0.13	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		0.80	0.060	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		0.80	0.16	ug/L	1
2-Chloronaphthalene	91-58-7	8270E	ND		0.80	0.15	ug/L	1
2-Chlorophenol	95-57-8	8270E	ND		0.80	0.16	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		0.80	0.16	ug/L	1
Chrysene	218-01-9	8270E	ND		0.16	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		0.16	0.040	ug/L	1
Dibenzofuran	132-64-9	8270E	ND		0.80	0.16	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		4.0	0.81	ug/L	1
2,4-Dichlorophenol	120-83-2	8270E	ND		0.80	0.19	ug/L	1
Diethylphthalate	84-66-2	8270E	ND		4.0	0.19	ug/L	1
Dimethyl phthalate	131-11-3	8270E	ND		4.0	0.18	ug/L	1
2,4-Dimethylphenol	105-67-9	8270E	ND		0.80	0.15	ug/L	1
Di-n-butyl phthalate	84-74-2	8270E	ND		4.0	0.42	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		4.0	0.89	ug/L	1
2,4-Dinitrophenol	51-28-5	8270E	ND		4.0	1.3	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		1.6	0.36	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		1.6	0.34	ug/L	1
Di-n-octylphthalate	117-84-0	8270E	ND		4.0	0.48	ug/L	1
bis(2-Ethylhexyl)phthalate	**117-81-7**	**8270E**	**0.70**	**BJL**	**4.0**	**0.38**	**ug/L**	1
Fluoranthene	206-44-0	8270E	ND		0.16	0.040	ug/L	1
Fluorene	86-73-7	8270E	ND		0.16	0.040	ug/L	1
Hexachlorobenzene	118-74-1	8270E	ND		0.80	0.15	ug/L	1
Hexachlorobutadiene	87-68-3	8270E	ND		0.80	0.17	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		4.0	1.1	ug/L	1
Hexachloroethane	67-72-1	8270E	ND		0.80	0.17	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		0.16	0.040	ug/L	1
Isophorone	78-59-1	8270E	ND	L	0.80	0.22	ug/L	1
2-Methylnaphthalene	91-57-6	8270E	ND		0.16	0.040	ug/L	1
2-Methylphenol	95-48-7	8270E	ND		0.80	0.21	ug/L	1
3+4-Methylphenol	106-44-5	8270E	ND		1.6	0.46	ug/L	1
Naphthalene	91-20-3	8270E	ND		0.16	0.040	ug/L	1
2-Nitroaniline	88-74-4	8270E	ND		1.6	0.66	ug/L	1
3-Nitroaniline	99-09-2	8270E	ND		1.6	0.15	ug/L	1
4-Nitroaniline	100-01-6	8270E	ND		1.6	1.3	ug/L	1
Nitrobenzene	98-95-3	8270E	ND		0.80	0.17	ug/L	1
2-Nitrophenol	88-75-5	8270E	ND		1.6	0.44	ug/L	1
4-Nitrophenol	100-02-7	8270E	ND		4.0	2.1	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND	L	0.80	0.28	ug/L	1

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J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-3**
Date Sampled: **05/07/2021 1130**
Date Received: **05/10/2021**

Laboratory ID: **WE10084-008**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1722	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		0.80	0.50	ug/L	1
Pentachlorophenol	87-86-5	8270E	ND		4.0	1.3	ug/L	1
Phenanthrene	85-01-8	8270E	ND		0.16	0.040	ug/L	1
Phenol	108-95-2	8270E	ND		0.80	0.19	ug/L	1
Pyrene	129-00-0	8270E	ND		0.16	0.040	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		0.80	0.19	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		0.80	0.22	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		70	37-129
2-Fluorophenol		40	24-127
Nitrobenzene-d5		68	38-127
Phenol-d5		54	28-128
Terphenyl-d14		74	10-148
2,4,6-Tribromophenol		55	35-144

CVAA

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	05/13/2021 1840	CMS2	05/13/2021 1224	92149

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Mercury	7439-97-6	7470A	ND		0.00020	0.000091	mg/L	1

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1930	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2052	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Aluminum	**7429-90-5**	6020B	51		**40**	10	**ug/L**	**1**
Dissolved Antimony	**7440-36-0**	6020B	**0.80**	**J**	**2.0**	0.50	**ug/L**	**1**
Dissolved Arsenic	7440-38-2	6020B	ND		2.0	1.3	ug/L	1
Dissolved Barium	**7440-39-3**	6020B	**120**		**5.0**	1.3	**ug/L**	**1**
Dissolved Cadmium	7440-43-9	6020B	ND		0.50	0.13	ug/L	1
Dissolved Calcium	**7440-70-2**	6020B	**120000**		**4000**	1000	**ug/L**	**2**
Dissolved Chromium	7440-47-3	6020B	ND		5.0	1.3	ug/L	1
Dissolved Cobalt	7440-48-4	6020B	ND		5.0	1.3	ug/L	1
Dissolved Copper	**7440-50-8**	6020B	1.6	**J**	**5.0**	1.3	**ug/L**	**1**

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of Holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Burnell-Lammons Engineering, Inc.**
Description: **GW-3**
Date Sampled: **05/07/2021 1130**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-008**
Matrix: **Aqueous**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1930	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2052	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Iron	**7439-89-6**	**6020B**	**110**		**50**	**13**	**ug/L**	**1**
Dissolved Lead	7439-92-1	6020B	ND		1.0	0.25	ug/L	1
Dissolved Magnesium	**7439-95-4**	**6020B**	**14000**		**400**	**50**	**ug/L**	**1**
Dissolved Manganese	**7439-96-5**	**6020B**	**160**		**5.0**	**1.3**	**ug/L**	**1**
Dissolved Nickel	**7440-02-0**	**6020B**	**13**		**5.0**	**1.3**	**ug/L**	**1**
Dissolved Potassium	**7440-09-7**	**6020B**	**7900**		**400**	**100**	**ug/L**	**1**
Dissolved Selenium	7782-49-2	6020B	ND		5.0	1.3	ug/L	1
Dissolved Silver	7440-22-4	6020B	ND		1.0	0.25	ug/L	1
Dissolved Sodium	**7440-23-5**	**6020B**	**4200**		**400**	**150**	**ug/L**	**1**
Dissolved Thallium	7440-28-0	6020B	ND		0.50	0.15	ug/L	1
Dissolved Vanadium	**7440-62-2**	**6020B**	**6.9**		**5.0**	**2.5**	**ug/L**	**1**
Dissolved Zinc	7440-66-6	6020B	ND		10	2.5	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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J = Estimated result < LOQ and ≥ DL
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Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-4**
Date Sampled: **05/07/2021 1220**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2101	JDF		92459
3	5030B	8260D	1	05/20/2021 0044	CJL2		92681

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-4**
Date Sampled: **05/07/2021 1220**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-009**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/18/2021 2101	JDF		92459
3	5030B	8260D	1	05/20/2021 0344	CJL2		92881

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 3 % Recovery	Acceptance Limits
Bromofluorobenzene		96	70-130		103	70-130
1,2-Dichloroethane-d4		88	70-130		111	70-130
Toluene-d8		96	70-130		110	70-130

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/18/2021 1748	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	83-32-9	8270E	ND		0.16	0.040	ug/L	1
Acenaphthylene	208-96-8	8270E	ND		0.16	0.040	ug/L	1
Acetophenone	98-86-2	8270E	ND		0.80	0.23	ug/L	1
Anthracene	120-12-7	8270E	ND		0.16	0.040	ug/L	1
Atrazine	1912-24-9	8270E	ND		0.80	0.20	ug/L	1
Benzaldehyde	100-52-7	8270E	ND		4.0	0.27	ug/L	1
Benzo(a)anthracene	56-55-3	8270E	ND		0.16	0.040	ug/L	1
Benzo(a)pyrene	50-32-8	8270E	ND		0.16	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		0.16	0.040	ug/L	1
1,1'-Biphenyl	92-52-4	8270E	ND		0.80	0.21	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		0.80	0.15	ug/L	1
Butyl benzyl phthalate	85-68-7	8270E	ND		4.0	0.21	ug/L	1
Caprolactam	105-60-2	8270E	ND		4.0	0.71	ug/L	1
Carbazole	86-74-8	8270E	ND	L	0.80	0.040	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		0.80	0.17	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		0.80	0.26	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time

B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis

X = Quantitation of compound exceeded the calibration range
P = The RPD between two GC counts exceeds 40%

DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Q = Surrogate failure
L = LCS/ LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-4**
Date Sampled: **05/07/2021 1220**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-009**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1746	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
4-Chloroaniline	106-47-8	8270E	ND		0.80	0.13	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		0.80	0.060	ug/L	1
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		0.80	0.16	ug/L	1
2-Chloronaphthalene	91-58-7	8270E	ND		0.80	0.15	ug/L	1
2-Chlorophenol	95-57-8	8270E	ND		0.80	0.15	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		0.80	0.16	ug/L	1
Chrysene	218-01-9	8270E	ND		0.16	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		0.16	0.040	ug/L	1
Dibenzofuran	132-64-9	8270E	ND		0.80	0.16	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		4.0	0.81	ug/L	1
2,4-Dichlorophenol	120-83-2	8270E	ND		0.80	0.19	ug/L	1
Diethylphthalate	84-66-2	8270E	ND		4.0	0.19	ug/L	1
Dimethyl phthalate	131-11-3	8270E	ND		4.0	0.18	ug/L	1
2,4-Dimethylphenol	105-67-9	8270E	ND		0.80	0.15	ug/L	1
Di-n-butyl phthalate	84-74-2	8270E	ND		4.0	0.42	ug/L	1
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		4.0	0.89	ug/L	1
2,4-Dinitrophenol	51-28-5	8270E	ND		4.0	1.3	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		1.6	0.36	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		1.6	0.34	ug/L	1
Di-n-octylphthalate	117-84-0	8270E	ND		4.0	0.48	ug/L	1
bis(2-Ethylhexyl)phthalate	**117-81-7**	**8270E**	**0.63**	**BJL**	**4.0**	**0.38**	**ug/L**	**1**
Fluoranthene	206-44-0	8270E	ND		0.16	0.040	ug/L	1
Fluorene	86-73-7	8270E	ND		0.16	0.040	ug/L	1
Hexachlorobenzene	118-74-1	8270E	ND		0.80	0.15	ug/L	1
Hexachlorobutadiene	87-68-3	8270E	ND		0.80	0.17	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		4.0	1.1	ug/L	1
Hexachloroethane	67-72-1	8270E	ND		0.80	0.17	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		0.16	0.040	ug/L	1
Isophorone	78-59-1	8270E	ND	L	0.80	0.22	ug/L	1
2-Methylnaphthalene	**91-57-6**	**8270E**	**0.043**	**J**	**0.16**	**0.040**	**ug/L**	**1**
2-Methylphenol	95-48-7	8270E	ND		0.80	0.21	ug/L	1
3+4-Methylphenol	106-44-5	8270E	ND		1.6	0.46	ug/L	1
Naphthalene	**91-20-3**	**8270E**	**0.051**	**J**	**0.16**	**0.040**	**ug/L**	**1**
2-Nitroaniline	88-74-4	8270E	ND		1.6	0.66	ug/L	1
3-Nitroaniline	99-09-2	8270E	ND		1.6	0.15	ug/L	1
4-Nitroaniline	100-01-6	8270E	ND		1.6	1.3	ug/L	1
Nitrobenzene	98-95-3	8270E	ND		0.80	0.17	ug/L	1
2-Nitrophenol	88-75-5	8270E	ND		1.6	0.44	ug/L	1
4-Nitrophenol	100-02-7	8270E	ND		4.0	2.1	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND	L	0.80	0.28	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-4**
Date Sampled: **05/07/2021 1220**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-009**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1746	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		0.80	0.50	ug/L	1
Pentachlorophenol	87-86-5	8270E	ND		4.0	1.3	ug/L	1
Phenanthrene	85-01-8	8270E	ND		0.16	0.040	ug/L	1
Phenol	108-95-2	8270E	ND		0.80	0.19	ug/L	1
Pyrene	129-00-0	8270E	ND		0.16	0.040	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		0.80	0.19	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		0.80	0.22	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		42	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		56	28-128
Terphenyl-d14		78	10-148
2,4,6-Tribromophenol		52	35-144

CVAA

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	05/13/2021 1843	CMS2	05/13/2021 1224	92149

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Mercury	7439-97-6	7470A	ND		0.00020	0.000093	mg/L	1

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1938	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2100	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Aluminum	**7429-90-5**	**6020B**	13	J	40	10	ug/L	1
Dissolved Antimony	**7440-36-0**	**6020B**	**2.1**		**2.0**	**0.50**	**ug/L**	**1**
Dissolved Arsenic	7440-38-2	6020B	ND		2.0	1.3	ug/L	1
Dissolved Barium	**7440-39-3**	**6020B**	**210**		**5.0**	**1.3**	**ug/L**	**1**
Dissolved Cadmium	7440-43-9	6020B	ND		0.50	0.13	ug/L	1
Dissolved Calcium	**7440-70-2**	**6020B**	**120000**		**4000**	**1000**	**ug/L**	**2**
Dissolved Chromium	7440-47-3	6020B	ND		5.0	1.3	ug/L	1
Dissolved Cobalt	7440-48-4	6020B	ND		5.0	1.3	ug/L	1
Dissolved Copper	7440-50-8	6020B	ND		5.0	1.3	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-4**
Date Sampled: **05/07/2021 1220**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-009**
Matrix: **Aqueous**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 1938	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2100	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Iron	**7439-89-6**	**6020B**	**29**	**J**	**50**	**13**	**ug/L**	**1**
Dissolved Lead	7439-92-1	6020B	ND		1.0	0.25	ug/L	1
Dissolved Magnesium	**7439-95-4**	**6020B**	**9100**		**400**	**50**	**ug/L**	**1**
Dissolved Manganese	**7439-96-5**	**6020B**	**940**		**50**	**13**	**ug/L**	**2**
Dissolved Nickel	**7440-02-0**	**6020B**	**1.3**	**J**	**5.0**	**1.3**	**ug/L**	**1**
Dissolved Potassium	**7440-09-7**	**6020B**	**7500**		**400**	**100**	**ug/L**	**1**
Dissolved Selenium	7782-49-2	6020B	ND		5.0	1.3	ug/L	1
Dissolved Silver	7440-22-4	6020B	ND		1.0	0.25	ug/L	1
Dissolved Sodium	**7440-23-5**	**6020B**	**8900**		**400**	**150**	**ug/L**	**1**
Dissolved Thallium	7440-28-0	6020B	ND		0.50	0.15	ug/L	1
Dissolved Vanadium	7440-62-2	6020B	ND		5.0	2.5	ug/L	1
Dissolved Zinc	7440-66-6	6020B	ND		10	2.5	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-5**
Date Sampled: **05/07/2021 1050**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-010**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2123	JDF		92459

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	6.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		6.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-5**
Date Sampled: **05/07/2021 1050**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-010**
Matrix: **Aqueous**

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	05/16/2021 2123	JDF		92459

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		92	70-130

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1811	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acenaphthene	**83-32-9**	**8270E**	**0.045**	**J**	**0.16**	**0.040**	**ug/L**	**1**
Acenaphthylene	208-96-8	8270E	ND		0.16	0.040	ug/L	1
Acetophenone	98-86-2	8270E	ND		0.80	0.23	ug/L	1
Anthracene	120-12-7	8270E	ND		0.16	0.040	ug/L	1
Atrazine	1912-24-9	8270E	ND		0.80	0.20	ug/L	1
Benzaldehyde	100-52-7	8270E	ND		4.0	0.27	ug/L	1
Benzo(a)anthracene	56-55-3	8270E	ND		0.16	0.040	ug/L	1
Benzo(a)pyrene	50-32-8	8270E	ND		0.16	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270E	ND		0.16	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270E	ND		0.16	0.040	ug/L	1
1,1'-Biphenyl	92-52-4	8270E	ND		0.80	0.21	ug/L	1
4-Bromophenyl phenyl ether	101-55-3	8270E	ND		0.80	0.15	ug/L	1
Butyl benzyl phthalate	85-68-7	8270E	ND		4.0	0.21	ug/L	1
Caprolactam	105-60-2	8270E	ND		4.0	0.71	ug/L	1
Carbazole	86-74-8	8270E	ND	L	0.80	0.040	ug/L	1
bis (2-Chloro-1-methylethyl) ether	108-60-1	8270E	ND		0.80	0.17	ug/L	1
4-Chloro-3-methyl phenol	59-50-7	8270E	ND		0.80	0.26	ug/L	1
4-Chloroaniline	106-47-8	8270E	ND		0.80	0.13	ug/L	1
bis(2-Chloroethoxy)methane	111-91-1	8270E	ND		0.80	0.060	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
U = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-5**
Date Sampled: **05/07/2021 1050**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-010**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1811	STM	05/13/2021 1422	92194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
bis(2-Chloroethyl)ether	111-44-4	8270E	ND		0.80	0.16	ug/L	1
2-Chloronaphthalene	91-58-7	8270E	ND		0.80	0.15	ug/L	1
2-Chlorophenol	95-57-8	8270E	ND		0.80	0.15	ug/L	1
4-Chlorophenyl phenyl ether	7005-72-3	8270E	ND		0.80	0.16	ug/L	1
Chrysene	218-01-9	8270E	ND		0.16	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270E	ND		0.16	0.040	ug/L	1
Dibenzofuran	132-64-9	8270E	ND		0.80	0.16	ug/L	1
3,3'-Dichlorobenzidine	91-94-1	8270E	ND		4.0	0.81	ug/L	1
2,4-Dichlorophenol	120-83-2	8270E	ND		0.80	0.19	ug/L	1
Diethylphthalate	**84-66-2**	**8270E**	**0.43**	**J**	**4.0**	**0.19**	**ug/L**	**1**
Dimethyl phthalate	131-11-3	8270E	ND		4.0	0.18	ug/L	1
2,4-Dimethylphenol	105-67-9	8270E	ND		0.80	0.15	ug/L	1
Di-n-butyl phthalate	**84-74-2**	**8270E**	**1.0**	**J**	**4.0**	**0.42**	**ug/L**	**1**
4,6-Dinitro-2-methylphenol	534-52-1	8270E	ND		4.0	0.89	ug/L	1
2,4-Dinitrophenol	51-28-5	8270E	ND		4.0	1.3	ug/L	1
2,4-Dinitrotoluene	121-14-2	8270E	ND		1.6	0.38	ug/L	1
2,6-Dinitrotoluene	606-20-2	8270E	ND		1.6	0.34	ug/L	1
Di-n-octylphthalate	117-84-0	8270E	ND		4.0	0.48	ug/L	1
bis(2-Ethylhexyl)phthalate	**117-81-7**	**8270E**	**0.84**	**BJL**	**4.0**	**0.38**	**ug/L**	**1**
Fluoranthene	206-44-0	8270E	ND		0.16	0.040	ug/L	1
Fluorene	86-73-7	8270E	ND		0.16	0.040	ug/L	1
Hexachlorobenzene	118-74-1	8270E	ND		0.80	0.15	ug/L	1
Hexachlorobutadiene	87-68-3	8270E	ND		0.80	0.17	ug/L	1
Hexachlorocyclopentadiene	77-47-4	8270E	ND		4.0	1.1	ug/L	1
Hexachloroethane	67-72-1	8270E	ND		0.80	0.17	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270E	ND		0.16	0.040	ug/L	1
Isophorone	78-59-1	8270E	ND	L	0.80	0.22	ug/L	1
2-Methylnaphthalene	91-57-6	8270E	ND		0.16	0.040	ug/L	1
2-Methylphenol	95-48-7	8270E	ND		0.80	0.21	ug/L	1
3+4-Methylphenol	106-44-5	8270E	ND		1.6	0.46	ug/L	1
Naphthalene	91-20-3	8270E	ND		0.16	0.040	ug/L	1
2-Nitroaniline	88-74-4	8270E	ND		1.6	0.68	ug/L	1
3-Nitroaniline	99-09-2	8270E	ND		1.6	0.15	ug/L	1
4-Nitroaniline	100-01-6	8270E	ND		1.6	1.3	ug/L	1
Nitrobenzene	98-95-3	8270E	ND		0.80	0.17	ug/L	1
2-Nitrophenol	88-75-5	8270E	ND		1.6	0.44	ug/L	1
4-Nitrophenol	100-02-7	8270E	ND		4.0	2.1	ug/L	1
N-Nitrosodi-n-propylamine	621-64-7	8270E	ND	L	0.80	0.28	ug/L	1
N-Nitrosodiphenylamine (Diphenylamine)	86-30-6	8270E	ND		0.80	0.50	ug/L	1
Pentachlorophenol	87-86-5	8270E	ND		4.0	1.3	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the D...
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-5**
Date Sampled: **05/07/2021 1050**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-010**
Matrix: **Aqueous**

Semivolatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270E	1	05/16/2021 1811	STM	05/13/2021 1422	92184

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Phenanthrene	85-01-8	8270E	ND		0.16	0.040	ug/L	1
Phenol	108-95-2	8270E	ND		0.80	0.19	ug/L	1
Pyrene	129-00-0	8270E	ND		0.16	0.040	ug/L	1
2,4,5-Trichlorophenol	95-95-4	8270E	ND		0.80	0.19	ug/L	1
2,4,6-Trichlorophenol	88-06-2	8270E	ND		0.80	0.22	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		71	37-129
2-Fluorophenol		41	24-127
Nitrobenzene-d5		73	38-127
Phenol-d5		53	28-128
Terphenyl-d14		76	10-148
2,4,6-Tribromophenol		56	35-144

CVAA

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		7470A	1	05/13/2021 1846	CMS2	05/13/2021 1224	92149

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Mercury	7439-97-6	7470A	ND		0.00020	0.000091	mg/L	1

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 2000	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2107	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Aluminum	**7429-90-5**	**6020B**	81		**40**	10	ug/L	**1**
Dissolved Antimony	**7440-36-0**	**6020B**	0.56	J	**2.0**	**0.50**	ug/L	**1**
Dissolved Arsenic	7440-38-2	6020B	ND		2.0	1.3	ug/L	1
Dissolved Barium	**7440-39-3**	**6020B**	26		**5.0**	**1.3**	ug/L	**1**
Dissolved Cadmium	7440-43-9	6020B	ND		0.50	0.13	ug/L	1
Dissolved Calcium	**7440-70-2**	**6020B**	80000		**4000**	**1000**	ug/L	**2**
Dissolved Chromium	7440-47-3	6020B	ND		5.0	1.3	ug/L	1
Dissolved Cobalt	7440-48-4	6020B	ND		5.0	1.3	ug/L	1
Dissolved Copper	7440-50-8	6020B	ND		5.0	1.3	ug/L	1
Dissolved Iron	**7439-89-6**	**6020B**	2300		**50**	**13**	ug/L	**1**
Dissolved Lead	7439-92-1	6020B	ND		1.0	0.25	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: **Bunnell-Lammons Engineering, Inc.**
Description: **GW-5**
Date Sampled: **05/07/2021 1050**
Date Received: **05/10/2021**

Laboratory ID: **WE10034-010**
Matrix: **Aqueous**

ICP-MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3005A	6020B	1	05/13/2021 2000	BPK	05/13/2021 0401	92120
2	3005A	6020B	10	05/13/2021 2107	BPK	05/13/2021 0401	92120

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Dissolved Magnesium	**7439-95-4**	**6020B**	**15000**		**400**	**50**	**ug/L**	**1**
Dissolved Manganese	**7439-96-5**	**6020B**	**430**		**50**	**13**	**ug/L**	**2**
Dissolved Nickel	**7440-02-0**	**6020B**	**1.6**	**J**	**5.0**	**1.3**	**ug/L**	**1**
Dissolved Potassium	**7440-09-7**	**6020B**	**3900**		**400**	**100**	**ug/L**	**1**
Dissolved Selenium	7782-49-2	6020B	ND		5.0	1.3	ug/L	1
Dissolved Silver	7440-22-4	6020B	ND		1.0	0.25	ug/L	1
Dissolved Sodium	**7440-23-5**	**6020B**	**7400**		**400**	**150**	**ug/L**	**1**
Dissolved Thallium	7440-28-0	6020B	ND		0.50	0.15	ug/L	1
Dissolved Vanadium	7440-62-2	6020B	ND		5.0	2.5	ug/L	1
Dissolved Zinc	7440-66-6	6020B	ND		10	2.5	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time

B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis

X = Quantitation of compound exceeded the calibration range
* = The RPD between two GC columns exceeds 40%

DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

QC Summary

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ82458-001
Batch: 92459
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	05/16/2021 1619
Benzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Bromodichloromethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Bromoform	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	05/16/2021 1619
2-Butanone (MEK)	ND		1	10	2.0	ug/L	05/16/2021 1619
Carbon disulfide	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Chlorobenzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Chloroethane	ND		1	2.0	0.40	ug/L	05/16/2021 1619
Chloroform	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	05/16/2021 1619
Cyclohexane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Dibromochloromethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,2-Dichlorobenzene	**1.3**		**1**	**1.0**	**0.40**	**ug/L**	**05/16/2021 1619**
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	05/16/2021 1619
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Ethylbenzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
2-Hexanone	ND		1	10	2.0	ug/L	05/16/2021 1619
Isopropylbenzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Methyl acetate	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	05/16/2021 1619
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	05/16/2021 1619
Methylcyclohexane	ND		1	5.0	0.40	ug/L	05/16/2021 1619
Methylene chloride	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Styrene	ND		1	1.0	0.41	ug/L	05/16/2021 1619
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Tetrachloroethene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Toluene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	05/16/2021 1619
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619

LOQ - Limit of Quantitation
DL - Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria

N - Recovery is out of criteria
P - The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ92459-001
Batch: 92459
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Vinyl chloride	ND		1	1.0	0.40	ug/L	05/16/2021 1619
Xylenes (total)	ND		1	1.0	0.40	ug/L	05/16/2021 1619

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92459-002
Batch: 92459
Analytical Method: 8260D
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	120		1	119	60-140	05/16/2021 1528
Benzene	50	51		1	102	70-130	05/16/2021 1528
Bromodichloromethane	50	47		1	94	70-130	05/16/2021 1528
Bromoform	50	52		1	105	70-130	05/16/2021 1528
Bromomethane (Methyl bromide)	50	46		1	92	70-130	05/16/2021 1528
2-Butanone (MEK)	100	110		1	110	70-130	05/16/2021 1528
Carbon disulfide	50	54		1	108	70-130	05/16/2021 1528
Carbon tetrachloride	50	49		1	98	70-130	05/16/2021 1528
Chlorobenzene	50	53		1	106	70-130	05/16/2021 1528
Chloroethane	50	46		1	93	70-130	05/16/2021 1528
Chloroform	50	46		1	92	70-130	05/16/2021 1528
Chloromethane (Methyl chloride)	50	47		1	94	60-140	05/16/2021 1528
Cyclohexane	50	61		1	123	70-130	05/16/2021 1528
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	101	70-130	05/16/2021 1528
Dibromochloromethane	50	49		1	97	70-130	05/16/2021 1528
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	05/16/2021 1528
1,2-Dichlorobenzene	50	56		1	111	70-130	05/16/2021 1528
1,3-Dichlorobenzene	50	55		1	109	70-130	05/16/2021 1528
1,4-Dichlorobenzene	50	53		1	105	70-130	05/16/2021 1528
Dichlorodifluoromethane	50	44		1	88	60-140	05/16/2021 1528
1,1-Dichloroethane	50	48		1	95	70-130	05/16/2021 1528
1,2-Dichloroethane	50	43		1	86	70-130	05/16/2021 1528
1,1-Dichloroethene	50	51		1	102	70-130	05/16/2021 1528
cis-1,2-Dichloroethene	50	49		1	98	70-130	05/16/2021 1528
trans-1,2-Dichloroethene	50	51		1	102	70-130	05/16/2021 1528
1,2-Dichloropropane	50	49		1	98	70-130	05/16/2021 1528
cis-1,3-Dichloropropene	50	51		1	102	70-130	05/16/2021 1528
trans-1,3-Dichloropropene	50	53		1	106	70-130	05/16/2021 1528
Ethylbenzene	50	54		1	109	70-130	05/16/2021 1528
2-Hexanone	100	110		1	109	70-130	05/16/2021 1528
Isopropylbenzene	50	55		1	110	70-130	05/16/2021 1528
Methyl acetate	50	40		1	80	70-130	05/16/2021 1528
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	05/16/2021 1528
4-Methyl-2-pentanone	100	100		1	100	70-130	05/16/2021 1528
Methylcyclohexane	50	54		1	108	70-130	05/16/2021 1528
Methylene chloride	50	45		1	91	70-130	05/16/2021 1528
Styrene	50	55		1	111	70-130	05/16/2021 1528
1,1,2,2-Tetrachloroethane	50	55		1	109	70-130	05/16/2021 1528
Tetrachloroethene	50	50		1	100	70-130	05/16/2021 1528
Toluene	50	55		1	109	70-130	05/16/2021 1528
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	109	70-130	05/16/2021 1528
1,2,4-Trichlorobenzene	50	59		1	118	70-130	05/16/2021 1528
1,1,1-Trichloroethane	50	49		1	98	70-130	05/16/2021 1528
1,1,2-Trichloroethane	50	53		1	106	70-130	05/16/2021 1528

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL.
J = Estimated result < LOQ and ≥ DL.
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92459-002 **Matrix:** Aqueous
Batch: 92459 **Prep Method:** 5030B
Analytical Method: 8260D

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	47		1	93	70-130	05/16/2021 1528
Trichlorofluoromethane	50	42		1	83	70-130	05/16/2021 1528
Vinyl chloride	50	45		1	90	70-130	05/16/2021 1528
Xylenes (total)	100	110		1	109	70-130	05/16/2021 1528

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The %RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ92636-001
Batch: 92636
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	8.0	ug/kg	05/18/2021 1003
Benzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Bromodichloromethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Bromoform	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Bromomethane (Methyl bromide)	ND		1	5.0	3.0	ug/kg	05/18/2021 1003
2-Butanone (MEK)	ND		1	20	4.0	ug/kg	05/18/2021 1003
Carbon disulfide	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Carbon tetrachloride	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Chlorobenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Chloroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Chloroform	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Chloromethane (Methyl chloride)	ND		1	5.0	3.0	ug/kg	05/18/2021 1003
Cyclohexane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Dibromochloromethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,2-Dibromoethane (EDB)	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,2-Dichlorobenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,3-Dichlorobenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,4-Dichlorobenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Dichlorodifluoromethane	ND		1	5.0	3.0	ug/kg	05/18/2021 1003
1,1-Dichloroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,2-Dichloroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,1-Dichloroethene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
cis-1,2-Dichloroethene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
trans-1,2-Dichloroethene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,2-Dichloropropane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
cis-1,3-Dichloropropene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
trans-1,3-Dichloropropene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Ethylbenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
2-Hexanone	ND		1	10	4.0	ug/kg	05/18/2021 1003
Isopropylbenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Methyl acetate	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
4-Methyl-2-pentanone	ND		1	10	4.0	ug/kg	05/18/2021 1003
Methylcyclohexane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Methylene chloride	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Styrene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,1,2,2-Tetrachloroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Tetrachloroethene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Toluene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,2,4-Trichlorobenzene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,1,1-Trichloroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
1,1,2-Trichloroethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ92636-001
Batch: 92636
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Trichlorofluoromethane	ND		1	5.0	2.0	ug/kg	05/18/2021 1003
Vinyl chloride	ND		1	5.0	3.0	ug/kg	05/18/2021 1003
Xylenes (total)	ND		1	10	4.0	ug/kg	05/18/2021 1003

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	47-136
1,2-Dichloroethane-d4		88	53-142
Toluene-d8		99	68-124

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WG92636-002
Batch: 92636
Analytical Method: 8260D
Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	94		1	94	60-140	05/18/2021 0916
Benzene	50	51		1	101	70-130	05/18/2021 0916
Bromodichloromethane	50	48		1	96	70-130	05/18/2021 0916
Bromoform	50	51		1	102	70-130	05/18/2021 0916
Bromomethane (Methyl bromide)	50	50		1	100	70-130	05/18/2021 0916
2-Butanone (MEK)	100	87		1	87	60-140	05/18/2021 0916
Carbon disulfide	50	52		1	104	70-130	05/18/2021 0916
Carbon tetrachloride	50	51		1	102	70-130	05/18/2021 0916
Chlorobenzene	50	52		1	104	70-130	05/18/2021 0916
Chloroethane	50	52		1	104	70-130	05/18/2021 0916
Chloroform	50	47		1	94	70-130	05/18/2021 0916
Chloromethane (Methyl chloride)	50	49		1	98	60-140	05/18/2021 0916
Cyclohexane	50	53		1	107	70-130	05/18/2021 0916
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	05/18/2021 0916
Dibromochloromethane	50	46		1	91	70-130	05/18/2021 0916
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	05/18/2021 0916
1,2-Dichlorobenzene	50	53		1	105	70-130	05/18/2021 0916
1,3-Dichlorobenzene	50	54		1	109	70-130	05/18/2021 0916
1,4-Dichlorobenzene	50	53		1	106	70-130	05/18/2021 0916
Dichlorodifluoromethane	50	51		1	102	60-140	05/18/2021 0916
1,1-Dichloroethane	50	47		1	94	70-130	05/18/2021 0916
1,2-Dichloroethane	50	40		1	80	70-130	05/18/2021 0916
1,1-Dichloroethene	50	54		1	108	70-130	05/18/2021 0916
cis-1,2-Dichloroethene	50	48		1	96	70-130	05/18/2021 0916
trans-1,2-Dichloroethene	50	51		1	103	70-130	05/18/2021 0916
1,2-Dichloropropane	50	47		1	94	70-130	05/18/2021 0916
cis-1,3-Dichloropropene	50	48		1	95	70-130	05/18/2021 0916
trans-1,3-Dichloropropene	50	47		1	95	70-130	05/18/2021 0916
Ethylbenzene	50	54		1	109	70-130	05/18/2021 0916
2-Hexanone	100	94		1	94	70-130	05/18/2021 0916
Isopropylbenzene	50	55		1	110	70-130	05/18/2021 0916
Methyl acetate	50	42		1	83	70-130	05/18/2021 0916
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	05/18/2021 0916
4-Methyl-2-pentanone	100	91		1	91	70-130	05/18/2021 0916
Methylcyclohexane	50	56		1	112	70-130	05/18/2021 0916
Methylene chloride	50	43		1	87	70-130	05/18/2021 0916
Styrene	50	52		1	105	70-130	05/18/2021 0916
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	05/18/2021 0916
Tetrachloroethene	50	57		1	114	70-130	05/18/2021 0916
Toluene	50	52		1	105	70-130	05/18/2021 0916
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	05/18/2021 0916
1,2,4-Trichlorobenzene	50	52		1	105	70-130	05/18/2021 0916
1,1,1-Trichloroethane	50	51		1	101	70-130	05/18/2021 0916
1,1,2-Trichloroethane	50	50		1	100	70-130	05/18/2021 0916

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result; < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92636-002
Batch: 92636
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	50		1	99	70-130	05/18/2021 0916
Trichlorofluoromethane	50	52		1	103	70-130	05/18/2021 0916
Vinyl chloride	50	52		1	105	70-130	05/18/2021 0916
Xylenes (total)	100	110		1	107	70-130	05/18/2021 0916

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	47-138
1,2-Dichloroethane-d4		86	53-142
Toluene-d8		101	68-124

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: WE10034-001DU
Batch: 92636
Analytical Method: 8260D
Matrix: Solid
Prep Method: 5035

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	%RPD Limit	Analysis Date
Acetone	ND	ND		1	0.00	20	05/18/2021 1722
Benzene	ND	ND		1	0.00	20	05/18/2021 1722
Bromodichloromethane	ND	ND		1	0.00	20	05/18/2021 1722
Bromoform	ND	ND		1	0.00	20	05/18/2021 1722
Bromomethane (Methyl bromide)	ND	ND		1	0.00	20	05/18/2021 1722
2-Butanone (MEK)	ND	ND		1	0.00	20	05/18/2021 1722
Carbon disulfide	ND	ND		1	0.00	20	05/18/2021 1722
Carbon tetrachloride	ND	ND		1	0.00	20	05/18/2021 1722
Chlorobenzene	ND	ND		1	0.00	20	05/18/2021 1722
Chloroethane	ND	ND		1	0.00	20	05/18/2021 1722
Chloroform	ND	ND		1	0.00	20	05/18/2021 1722
Chloromethane (Methyl chloride)	ND	ND		1	0.00	20	05/18/2021 1722
Cyclohexane	ND	ND		1	0.00	20	05/18/2021 1722
1,2-Dibromo-3-chloropropane (DBCP)	ND	ND		1	0.00	20	05/18/2021 1722
Dibromochloromethane	ND	ND		1	0.00	20	05/18/2021 1722
1,2-Dibromoethane (EDB)	ND	ND		1	0.00	20	05/18/2021 1722
1,2-Dichlorobenzene	ND	ND		1	0.00	20	05/18/2021 1722
1,3-Dichlorobenzene	ND	ND		1	0.00	20	05/18/2021 1722
1,4-Dichlorobenzene	ND	ND		1	0.00	20	05/18/2021 1722
Dichlorodifluoromethane	ND	ND		1	0.00	20	05/18/2021 1722
1,1-Dichloroethane	ND	ND		1	0.00	20	05/18/2021 1722
1,2-Dichloroethane	ND	ND		1	0.00	20	05/18/2021 1722
1,1-Dichloroethene	ND	ND		1	0.00	20	05/18/2021 1722
cis-1,2-Dichloroethene	ND	ND		1	0.00	20	05/18/2021 1722
trans-1,2-Dichloroethene	ND	ND		1	0.00	20	05/18/2021 1722
1,2-Dichloropropane	ND	ND		1	0.00	20	05/18/2021 1722
cis-1,3-Dichloropropene	ND	ND		1	0.00	20	05/18/2021 1722
trans-1,3-Dichloropropene	ND	ND		1	0.00	20	05/18/2021 1722
Ethylbenzene	ND	ND		1	0.00	20	05/18/2021 1722
2-Hexanone	ND	ND		1	0.00	20	05/18/2021 1722
Isopropylbenzene	ND	ND		1	0.00	20	05/18/2021 1722
Methyl acetate	ND	ND		1	0.00	20	05/18/2021 1722
Methyl tertiary butyl ether (MTBE)	ND	ND		1	0.00	20	05/18/2021 1722
4-Methyl-2-pentanone	ND	ND		1	0.00	20	05/18/2021 1722
Methylcyclohexane	ND	ND		1	0.00	20	05/18/2021 1722
Methylene chloride	ND	ND		1	0.00	20	05/18/2021 1722
Styrene	ND	ND		1	0.00	20	05/18/2021 1722
1,1,2,2-Tetrachloroethane	ND	ND		1	0.00	20	05/18/2021 1722
Tetrachloroethene	ND	ND		1	0.00	20	05/18/2021 1722
Toluene	ND	ND		1	0.00	20	05/18/2021 1722
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	ND		1	0.00	20	05/18/2021 1722
1,2,4-Trichlorobenzene	ND	ND		1	0.00	20	05/18/2021 1722
1,1,1-Trichloroethane	ND	ND		1	0.00	20	05/18/2021 1722
1,1,2-Trichloroethane	ND	ND		1	0.00	20	05/18/2021 1722

LOQ = Limit of Quantation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RPD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - Duplicate

Sample ID: WE10034-001DU
Batch: 92636
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Sample Amount (ug/kg)	Result (ug/kg)	Q	Dil	% RPD	%RPD Limit	Analysis Date
Trichloroethene	ND	ND		1	0.00	20	05/18/2021 1722
Trichlorofluoromethane	ND	ND		1	0.00	20	05/18/2021 1722
Vinyl chloride	ND	ND		1	0.00	20	05/18/2021 1722
Xylenes (total)	ND	ND		1	0.00	20	05/18/2021 1722

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	47-138
1,2-Dichloroethane-d4		89	53-142
Toluene-d8		98	68-124

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WE10034-003MS
Batch: 92636
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	100	93		1	90	70-130	05/18/2021 1746
Benzene	ND	52	63		1	123	70-130	05/18/2021 1746
Bromodichloromethane	ND	52	57		1	110	70-130	05/18/2021 1746
Bromoform	ND	52	56		1	108	70-130	05/18/2021 1746
Bromomethane (Methyl bromide)	ND	52	46		1	88	70-130	05/18/2021 1746
2-Butanone (MEK)	ND	100	91		1	88	70-130	05/18/2021 1746
Carbon disulfide	ND	52	65		1	127	70-130	05/18/2021 1746
Carbon tetrachloride	ND	52	71	N	1	137	70-130	05/18/2021 1746
Chlorobenzene	ND	52	57		1	110	70-130	05/18/2021 1746
Chloroethane	ND	52	42		1	82	70-130	05/18/2021 1746
Chloroform	ND	52	60		1	115	70-130	05/18/2021 1746
Chloromethane (Methyl chloride)	ND	52	38		1	73	60-140	05/18/2021 1746
Cyclohexane	ND	52	85	N	1	164	70-130	05/18/2021 1746
1,2-Dibromo-3-chloropropane (DBCP)	ND	52	54		1	106	70-130	05/18/2021 1746
Dibromochloromethane	ND	52	53		1	103	70-130	05/18/2021 1746
1,2-Dibromoethane (EDB)	ND	52	56		1	109	70-130	05/18/2021 1746
1,2-Dichlorobenzene	ND	52	50		1	97	70-130	05/18/2021 1746
1,3-Dichlorobenzene	ND	52	53		1	103	70-130	05/18/2021 1746
1,4-Dichlorobenzene	ND	52	51		1	98	70-130	05/18/2021 1746
Dichlorodifluoromethane	ND	52	35		1	67	60-140	05/18/2021 1746
1,1-Dichloroethane	ND	52	62		1	120	70-130	05/18/2021 1746
1,2-Dichloroethane	ND	52	49		1	94	70-130	05/18/2021 1746
1,1-Dichloroethene	ND	52	75	N	1	145	70-130	05/18/2021 1746
cis-1,2-Dichloroethene	ND	52	60		1	116	70-130	05/18/2021 1746
trans-1,2-Dichloroethene	ND	52	65		1	126	70-130	05/18/2021 1746
1,2-Dichloropropane	ND	52	59		1	113	70-130	05/18/2021 1746
cis-1,3-Dichloropropene	ND	52	55		1	106	70-130	05/18/2021 1746
trans-1,3-Dichloropropene	ND	52	53		1	102	70-130	05/18/2021 1746
Ethylbenzene	ND	52	65		1	126	70-130	05/18/2021 1746
2-Hexanone	ND	100	100		1	98	70-130	05/18/2021 1746
Isopropylbenzene	ND	52	74	N	1	144	70-130	05/18/2021 1746
Methyl acetate	ND	52	120	N	1	224	70-130	05/18/2021 1746
Methyl tertiary butyl ether (MTBE)	ND	52	56		1	107	70-130	05/18/2021 1746
4-Methyl-2-pentanone	ND	100	110		1	108	70-130	05/18/2021 1746
Methylcyclohexane	ND	52	88	N	1	167	70-130	05/18/2021 1746
Methylene chloride	ND	52	54		1	105	70-130	05/18/2021 1746
Styrene	ND	52	54		1	104	70-130	05/18/2021 1746
1,1,2,2-Tetrachloroethane	ND	52	65		1	126	70-130	05/18/2021 1746
Tetrachloroethene	ND	52	72	N	1	139	70-130	05/18/2021 1746
Toluene	ND	52	65		1	125	70-130	05/18/2021 1746
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	86	N	1	165	70-130	05/18/2021 1746
1,2,4-Trichlorobenzene	ND	52	32	N	1	62	70-130	05/18/2021 1746
1,1,1-Trichloroethane	ND	52	69	N	1	133	70-130	05/18/2021 1746
1,1,2-Trichloroethane	ND	52	59		1	115	70-130	05/18/2021 1746

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WE10034-003MS
Batch: 92636
Analytical Method: 8260D
Matrix: Solid
Prep Method: 5035

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethane	ND	52	62		1	119	70-130	05/18/2021 1746
Trichlorofluoromethane	ND	52	39		1	75	70-130	05/18/2021 1746
Vinyl chloride	ND	52	39		1	75	70-130	05/18/2021 1746
Xylenes (total)	ND	100	130		1	122	70-130	05/18/2021 1746

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	47-138
1,2-Dichloroethane-d4		107	53-142
Toluene-d8		100	68-124

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ92881-001
Batch: 92881
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	05/19/2021 2255

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result: < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92881-002
Batch: 92881
Analytical Method: 8260D
Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
1,2-Dichlorobenzene	50	50		1	99	70-130	05/19/2021 2141

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		86	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ92987-001
Batch: 92987
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	8.0	ug/kg	05/20/2021 0953
Benzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Bromodichloromethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Bromoform	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Bromomethane (Methyl bromide)	ND		1	5.0	3.0	ug/kg	05/20/2021 0953
2-Butanone (MEK)	ND		1	20	4.0	ug/kg	05/20/2021 0953
Carbon disulfide	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Carbon tetrachloride	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Chlorobenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Chloroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Chloroform	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Chloromethane (Methyl chloride)	ND		1	5.0	3.0	ug/kg	05/20/2021 0953
Cyclohexane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Dibromochloromethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,2-Dibromoethane (EDB)	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,2-Dichlorobenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,3-Dichlorobenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,4-Dichlorobenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Dichlorodifluoromethane	ND		1	5.0	3.0	ug/kg	05/20/2021 0953
1,1-Dichloroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,2-Dichloroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,1-Dichloroethene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
cis-1,2-Dichloroethene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
trans-1,2-Dichloroethene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,2-Dichloropropane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
cis-1,3-Dichloropropene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
trans-1,3-Dichloropropene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Ethylbenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
2-Hexanone	ND		1	10	4.0	ug/kg	05/20/2021 0953
Isopropylbenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Methyl acetate	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Methyl tertiary butyl ether (MTBE)	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
4-Methyl-2-pentanone	ND		1	10	4.0	ug/kg	05/20/2021 0953
Methylcyclohexane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Methylene chloride	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Styrene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,1,2,2-Tetrachloroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Tetrachloroethene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Toluene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,2,4-Trichlorobenzene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,1,1-Trichloroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
1,1,2-Trichloroethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ92987-001
Batch: 92987
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Trichlorofluoromethane	ND		1	5.0	2.0	ug/kg	05/20/2021 0953
Vinyl chloride	ND		1	5.0	3.0	ug/kg	05/20/2021 0953
Xylenes (total)	ND		1	10	4.0	ug/kg	05/20/2021 0953

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	47-138
1,2-Dichloroethane-d4		100	53-142
Toluene-d8		101	88-124

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92987-002
Batch: 92987
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	140	N	1	143	60-140	05/20/2021 0908
Benzene	50	51		1	103	70-130	05/20/2021 0908
Bromodichloromethane	50	55		1	110	70-130	05/20/2021 0908
Bromoform	50	54		1	109	70-130	05/20/2021 0908
Bromomethane (Methyl bromide)	50	44		1	88	70-130	05/20/2021 0908
2-Butanone (MEK)	100	120		1	122	60-140	05/20/2021 0908
Carbon disulfide	50	52		1	104	70-130	05/20/2021 0908
Carbon tetrachloride	50	54		1	108	70-130	05/20/2021 0908
Chlorobenzene	50	52		1	103	70-130	05/20/2021 0908
Chloroethane	50	45		1	90	70-130	05/20/2021 0908
Chloroform	50	52		1	104	70-130	05/20/2021 0908
Chloromethane (Methyl chloride)	50	38		1	76	60-140	05/20/2021 0908
Cyclohexane	50	50		1	99	70-130	05/20/2021 0908
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	97	70-130	05/20/2021 0908
Dibromochloromethane	50	49		1	99	70-130	05/20/2021 0908
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	05/20/2021 0908
1,2-Dichlorobenzene	50	49		1	99	70-130	05/20/2021 0908
1,3-Dichlorobenzene	50	50		1	100	70-130	05/20/2021 0908
1,4-Dichlorobenzene	50	50		1	100	70-130	05/20/2021 0908
Dichlorodifluoromethane	50	35		1	70	60-140	05/20/2021 0908
1,1-Dichloroethane	50	52		1	105	70-130	05/20/2021 0908
1,2-Dichloroethane	50	50		1	100	70-130	05/20/2021 0908
1,1-Dichloroethene	50	50		1	100	70-130	05/20/2021 0908
cis-1,2-Dichloroethene	50	52		1	104	70-130	05/20/2021 0908
trans-1,2-Dichloroethene	50	54		1	108	70-130	05/20/2021 0908
1,2-Dichloropropane	50	50		1	100	70-130	05/20/2021 0908
cis-1,3-Dichloropropene	50	53		1	106	70-130	05/20/2021 0908
trans-1,3-Dichloropropene	50	52		1	104	70-130	05/20/2021 0908
Ethylbenzene	50	54		1	108	70-130	05/20/2021 0908
2-Hexanone	100	110		1	108	70-130	05/20/2021 0908
Isopropylbenzene	50	54		1	107	70-130	05/20/2021 0908
Methyl acetate	50	44		1	87	70-130	05/20/2021 0908
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	05/20/2021 0908
4-Methyl-2-pentanone	100	98		1	98	70-130	05/20/2021 0908
Methylcyclohexane	50	54		1	108	70-130	05/20/2021 0908
Methylene chloride	50	48		1	95	70-130	05/20/2021 0908
Styrene	50	53		1	107	70-130	05/20/2021 0908
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	05/20/2021 0908
Tetrachloroethene	50	55		1	111	70-130	05/20/2021 0908
Toluene	50	53		1	107	70-130	05/20/2021 0908
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	103	70-130	05/20/2021 0908
1,2,4-Trichlorobenzene	50	56		1	113	70-130	05/20/2021 0908
1,1,1-Trichloroethane	50	54		1	108	70-130	05/20/2021 0908
1,1,2-Trichloroethane	50	51		1	103	70-130	05/20/2021 0908

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92987-002
Batch: 92987
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	53		1	107	70-130	05/20/2021 0908
Trichlorofluoromethane	50	46		1	91	70-130	05/20/2021 0908
Vinyl chloride	50	37		1	74	70-130	05/20/2021 0908
Xylenes (total)	100	110		1	109	70-130	05/20/2021 0908

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	47-138
1,2-Dichloroethane-d4		103	53-142
Toluene-d8		106	68-124

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: WQ82987-003
Batch: 82987
Analytical Method: 8260D

Matrix: Solid
Prep Method: 5035

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	100	140		1	140	2.0	60-140	20	05/20/2021 0931
Benzene	50	50		1	101	2.0	70-130	20	05/20/2021 0931
Bromodichloromethane	50	54		1	109	0.76	70-130	20	05/20/2021 0931
Bromoform	50	54		1	109	0.051	70-130	20	05/20/2021 0931
Bromomethane (Methyl bromide)	50	45		1	90	2.4	70-130	20	05/20/2021 0931
2-Butanone (MEK)	100	120		1	123	0.37	60-140	20	05/20/2021 0931
Carbon disulfide	50	51		1	101	3.0	70-130	20	05/20/2021 0931
Carbon tetrachloride	50	51		1	103	5.0	70-130	20	05/20/2021 0931
Chlorobenzene	50	51		1	102	1.4	70-130	20	05/20/2021 0931
Chloroethane	50	46		1	92	2.8	70-130	20	05/20/2021 0931
Chloroform	50	51		1	102	2.5	70-130	20	05/20/2021 0931
Chloromethane (Methyl chloride)	50	39		1	78	0.24	60-140	20	05/20/2021 0931
Cyclohexane	50	48		1	96	3.9	70-130	20	05/20/2021 0931
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	97	0.091	70-130	20	05/20/2021 0931
Dibromochloromethane	50	49		1	98	0.87	70-130	20	05/20/2021 0931
1,2-Dibromoethane (EDB)	50	53		1	107	1.8	70-130	20	05/20/2021 0931
1,2-Dichlorobenzene	50	48		1	97	2.2	70-130	20	05/20/2021 0931
1,3-Dichlorobenzene	50	50		1	99	1.2	70-130	20	05/20/2021 0931
1,4-Dichlorobenzene	50	50		1	100	0.27	70-130	20	05/20/2021 0931
Dichlorodifluoromethane	50	34		1	68	2.5	60-140	20	05/20/2021 0931
1,1-Dichloroethane	50	51		1	101	3.8	70-130	20	05/20/2021 0931
1,2-Dichloroethane	50	49		1	98	1.8	70-130	20	05/20/2021 0931
1,1-Dichloroethene	50	48		1	97	3.2	70-130	20	05/20/2021 0931
cis-1,2-Dichloroethene	50	51		1	102	1.6	70-130	20	05/20/2021 0931
trans-1,2-Dichloroethene	50	51		1	103	4.7	70-130	20	05/20/2021 0931
1,2-Dichloropropane	50	50		1	100	0.34	70-130	20	05/20/2021 0931
cis-1,3-Dichloropropene	50	53		1	107	0.12	70-130	20	05/20/2021 0931
trans-1,3-Dichloropropene	50	52		1	104	0.25	70-130	20	05/20/2021 0931
Ethylbenzene	50	54		1	107	1.1	70-130	20	05/20/2021 0931
2-Hexanone	100	110		1	110	1.6	70-130	20	05/20/2021 0931
Isopropylbenzene	50	52		1	104	3.0	70-130	20	05/20/2021 0931
Methyl acetate	50	44		1	87	0.22	70-130	20	05/20/2021 0931
Methyl tertiary butyl ether (MTBE)	50	51		1	102	0.28	70-130	20	05/20/2021 0931
4-Methyl-2-pentanone	100	100		1	100	2.0	70-130	20	05/20/2021 0931
Methylcyclohexane	50	51		1	102	5.3	70-130	20	05/20/2021 0931
Methylene chloride	50	47		1	94	1.2	70-130	20	05/20/2021 0931
Styrene	50	53		1	105	1.6	70-130	20	05/20/2021 0931
1,1,2,2-Tetrachloroethane	50	51		1	103	1.9	70-130	20	05/20/2021 0931
Tetrachloroethene	50	53		1	106	3.9	70-130	20	05/20/2021 0931
Toluene	50	52		1	104	2.0	70-130	20	05/20/2021 0931
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	1.2	70-130	20	05/20/2021 0931
1,2,4-Trichlorobenzene	50	55		1	111	1.8	70-130	20	05/20/2021 0931
1,1,1-Trichloroethane	50	52		1	104	3.8	70-130	20	05/20/2021 0931
1,1,2-Trichloroethane	50	52		1	105	1.8	70-130	20	05/20/2021 0931

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL.
J = Estimated: result < LOQ and > DL.
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCSD

Sample ID: WQ92987-003 **Matrix:** Solid
Batch: 92987 **Prep Method:** 5035
Analytical Method: 8260D

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	50	52		1	104	2.6	70-130	20	05/20/2021 0931
Trichlorofluoromethane	50	45		1	89	2.7	70-130	20	05/20/2021 0931
Vinyl chloride	50	37		1	74	0.66	70-130	20	05/20/2021 0931
Xylenes (total)	100	110		1	107	2.5	70-130	20	05/20/2021 0931

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	47-136
1,2-Dichloroethane-d4		103	53-142
Toluene-d8		104	68-124

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: WQ91939-001
Batch: 91939
Analytical Method: 8270E

Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acenaphthene	ND		1	2.7	0.83	ug/kg	05/25/2021 1532
Acenaphthylene	ND		1	2.7	0.95	ug/kg	05/25/2021 1532
Acetophenone	ND		1	13	5.0	ug/kg	05/25/2021 1532
Anthracene	ND		1	2.7	0.51	ug/kg	05/25/2021 1532
Atrazine	ND		1	13	5.0	ug/kg	05/25/2021 1532
Benzaldehyde	ND		1	13	5.0	ug/kg	05/25/2021 1532
Benzo(a)anthracene	ND		1	2.7	0.59	ug/kg	05/25/2021 1532
Benzo(a)pyrene	ND		1	2.7	0.86	ug/kg	05/25/2021 1532
Benzo(b)fluoranthene	ND		1	2.7	0.50	ug/kg	05/25/2021 1532
Benzo(g,h,i)perylene	ND		1	2.7	0.66	ug/kg	05/25/2021 1532
Benzo(k)fluoranthene	ND		1	2.7	0.48	ug/kg	05/25/2021 1532
1,1'-Biphenyl	ND		1	13	5.0	ug/kg	05/25/2021 1532
4-Bromophenyl phenyl ether	ND		1	13	5.0	ug/kg	05/25/2021 1532
Butyl benzyl phthalate	ND		1	13	5.0	ug/kg	05/25/2021 1532
Caprolactam	ND		1	13	5.0	ug/kg	05/25/2021 1532
Carbazole	ND		1	13	5.0	ug/kg	05/25/2021 1532
bis (2-Chloro-1-methylethyl) ether	ND		1	13	5.0	ug/kg	05/25/2021 1532
4-Chloro-3-methyl phenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
4-Chloroaniline	ND		1	13	5.0	ug/kg	05/25/2021 1532
bis(2-Chloroethoxy)methane	ND		1	13	5.0	ug/kg	05/25/2021 1532
bis(2-Chloroethyl)ether	ND		1	13	5.0	ug/kg	05/25/2021 1532
2-Chloronaphthalene	ND		1	13	5.0	ug/kg	05/25/2021 1532
2-Chlorophenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
4-Chlorophenyl phenyl ether	ND		1	13	5.0	ug/kg	05/25/2021 1532
Chrysene	ND		1	2.7	0.45	ug/kg	05/25/2021 1532
Dibenzo(a,h)anthracene	ND		1	2.7	0.51	ug/kg	05/25/2021 1532
Dibenzofuran	ND		1	13	5.0	ug/kg	05/25/2021 1532
3,3'-Dichlorobenzidine	ND		1	13	5.0	ug/kg	05/25/2021 1532
2,4-Dichlorophenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
Diethylphthalate	ND		1	13	5.0	ug/kg	05/25/2021 1532
Dimethyl phthalate	ND		1	13	7.4	ug/kg	05/25/2021 1532
2,4-Dimethylphenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
Di-n-butyl phthalate	**5.1**	**J**	1	13	5.0	**ug/kg**	**05/25/2021 1532**
4,6-Dinitro-2-methylphenol	ND		1	67	25	ug/kg	05/25/2021 1532
2,4-Dinitrophenol	ND		1	67	25	ug/kg	05/25/2021 1532
2,4-Dinitrotoluene	ND		1	27	10	ug/kg	05/25/2021 1532
2,6-Dinitrotoluene	ND		1	27	10	ug/kg	05/25/2021 1532
Di-n-octylphthalate	ND		1	13	5.0	ug/kg	05/25/2021 1532
bis(2-Ethylhexyl)phthalate	ND		1	67	25	ug/kg	05/25/2021 1532
Fluoranthene	ND		1	2.7	0.42	ug/kg	05/25/2021 1532
Fluorene	ND		1	2.7	0.57	ug/kg	05/25/2021 1532
Hexachlorobenzene	ND		1	13	5.0	ug/kg	05/25/2021 1532
Hexachlorobutadiene	ND		1	13	5.0	ug/kg	05/25/2021 1532
Hexachlorocyclopentadiene	ND		1	67	25	ug/kg	05/25/2021 1532

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: WQ91939-001
Batch: 91939
Analytical Method: 8270E
Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Hexachloroethane	ND		1	13	5.0	ug/kg	05/25/2021 1532
Indeno(1,2,3-c,d)pyrene	ND		1	2.7	1.0	ug/kg	05/25/2021 1532
Isophorone	ND		1	13	5.0	ug/kg	05/25/2021 1532
2-Methylnaphthalene	ND		1	2.7	0.99	ug/kg	05/25/2021 1532
2-Methylphenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
3+4-Methylphenol	ND		1	27	10	ug/kg	05/25/2021 1532
Naphthalene	ND		1	2.7	0.97	ug/kg	05/25/2021 1532
2-Nitroaniline	ND		1	27	10	ug/kg	05/25/2021 1532
3-Nitroaniline	ND		1	27	10	ug/kg	05/25/2021 1532
4-Nitroaniline	ND		1	27	10	ug/kg	05/25/2021 1532
Nitrobenzene	ND		1	13	5.0	ug/kg	05/25/2021 1532
2-Nitrophenol	ND		1	27	10	ug/kg	05/25/2021 1532
4-Nitrophenol	ND		1	67	25	ug/kg	05/25/2021 1532
N-Nitrosodi-n-propylamine	ND		1	13	5.0	ug/kg	05/25/2021 1532
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	13	5.0	ug/kg	05/25/2021 1532
Pentachlorophenol	ND		1	67	25	ug/kg	05/25/2021 1532
Phenanthrene	ND		1	2.7	0.72	ug/kg	05/25/2021 1532
Phenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
Pyrene	ND		1	2.7	0.50	ug/kg	05/25/2021 1532
2,4,6-Trichlorophenol	ND		1	13	5.0	ug/kg	05/25/2021 1532
2,4,6-Trichlorophenol	ND		1	13	5.0	ug/kg	05/25/2021 1532

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		99	33-102
2-Fluorophenol		98	35-115
Nitrobenzene-d5		99	22-109
Phenol-d5		110	33-122
Terphenyl-d14		108	41-120
2,4,6-Tribromophenol		109	30-117

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = %D is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: WQ81939-002
Batch: 91939
Analytical Method: 8270E

Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acenaphthene	130	100		1	79	12-111	05/24/2021 1209
Acenaphthylene	130	120		1	87	44-122	05/24/2021 1209
Acetophenone	130	110		1	84	48-111	05/24/2021 1209
Anthracene	130	110		1	84	16-122	05/24/2021 1209
Atrazine	130	96		1	72	48-116	05/24/2021 1209
Benzaldehyde	130	80		1	60	10-110	05/24/2021 1209
Benzo(a)anthracene	130	110		1	83	40-121	05/24/2021 1209
Benzo(a)pyrene	130	140		1	104	36-114	05/24/2021 1209
Benzo(b)fluoranthene	130	120		1	89	38-123	05/24/2021 1209
Benzo(g,h,i)perylene	130	110		1	84	43-120	05/24/2021 1209
Benzo(k)fluoranthene	130	120		1	90	40-126	05/24/2021 1209
1,1'-Biphenyl	130	110		1	84	49-110	05/24/2021 1209
4-Bromophenyl phenyl ether	130	130		1	101	46-118	05/24/2021 1209
Butyl benzyl phthalate	130	150		1	111	46-128	05/24/2021 1209
Caprolactam	130	100		1	76	43-121	05/24/2021 1209
Carbazole	130	110		1	82	47-128	05/24/2021 1209
bis (2-Chloro-1-methylethyl) ether	130	130		1	98	31-102	05/24/2021 1209
4-Chloro-3-methyl phenol	130	110		1	81	49-118	05/24/2021 1209
4-Chloroaniline	130	93		1	70	17-106	05/24/2021 1209
bis(2-Chloroethoxy)methane	130	110		1	83	39-108	05/24/2021 1209
bis(2-Chloroethyl)ether	130	130		1	98	32-105	05/24/2021 1209
2-Chloronaphthalene	130	110		1	83	31-127	05/24/2021 1209
2-Chlorophenol	130	110		1	79	37-106	05/24/2021 1209
4-Chlorophenyl phenyl ether	130	120		1	87	47-118	05/24/2021 1209
Chrysene	130	110		1	83	41-124	05/24/2021 1209
Dibenzo(a,h)anthracene	130	120		1	87	38-125	05/24/2021 1209
Dibenzofuran	130	110		1	83	45-112	05/24/2021 1209
3,3'-Dichlorobenzidine	130	100		1	78	10-119	05/24/2021 1209
2,4-Dichlorophenol	130	110		1	84	41-113	05/24/2021 1209
Diethylphthalate	130	110		1	80	49-123	05/24/2021 1209
Dimethyl phthalate	130	120		1	86	48-120	05/24/2021 1209
2,4-Dimethylphenol	130	120		1	92	33-123	05/24/2021 1209
Di-n-butyl phthalate	130	120		1	89	51-129	05/24/2021 1209
4,6-Dinitro-2-methylphenol	130	72		1	54	40-130	05/24/2021 1209
2,4-Dinitrophenol	270	76	N	1	28	32-115	05/24/2021 1209
2,4-Dinitrotoluene	130	110		1	85	48-124	05/24/2021 1209
2,6-Dinitrotoluene	130	120		1	92	47-125	05/24/2021 1209
Di-n-octylphthalate	130	120		1	93	49-142	05/24/2021 1209
bis(2-Ethylhexyl)phthalate	130	130		1	101	45-128	05/24/2021 1209
Fluoranthene	130	100		1	75	26-133	05/24/2021 1209
Fluorene	130	100		1	78	19-108	05/24/2021 1209
Hexachlorobenzene	130	130		1	99	44-122	05/24/2021 1209
Hexachlorobutadiene	130	110		1	79	33-103	05/24/2021 1209
Hexachlorocyclopentadiene	670	570		1	85	10-121	05/24/2021 1209

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: WQ91939-002 **Matrix:** Solid
Batch: 91939 **Prep Method:** 3546
Analytical Method: 8270E **Prep Date:** 05/11/2021 2048

Parameter	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Hexachloroethane	130	99		1	74	30-98	05/24/2021 1209
Indeno(1,2,3-c,d)pyrene	130	110		1	84	42-129	05/24/2021 1209
Isophorone	130	140		1	102	41-119	05/24/2021 1209
2-Methylnaphthalene	130	110		1	81	10-107	05/24/2021 1209
2-Methylphenol	130	110		1	85	32-107	05/24/2021 1209
3+4-Methylphenol	130	110		1	84	39-108	05/24/2021 1209
Naphthalene	130	110		1	80	10-112	05/24/2021 1209
2-Nitroaniline	130	110		1	83	45-123	05/24/2021 1209
3-Nitroaniline	130	82		1	62	24-127	05/24/2021 1209
4-Nitroaniline	130	90		1	68	48-127	05/24/2021 1209
Nitrobenzene	130	97		1	73	33-114	05/24/2021 1209
2-Nitrophenol	130	100		1	77	35-106	05/24/2021 1209
4-Nitrophenol	270	160		1	60	18-154	05/24/2021 1209
N-Nitrosodi-n-propylamine	130	130		1	101	32-115	05/24/2021 1209
N-Nitrosodiphenylamine (Diphenylamine)	130	110		1	84	53-150	05/24/2021 1209
Pentachlorophenol	270	140		1	54	27-136	05/24/2021 1209
Phenanthrene	130	110		1	80	18-123	05/24/2021 1209
Phenol	130	120		1	87	36-108	05/24/2021 1209
Pyrene	130	87		1	66	34-121	05/24/2021 1209
2,4,5-Trichlorophenol	130	100		1	77	46-122	05/24/2021 1209
2,4,6-Trichlorophenol	130	110		1	80	38-115	05/24/2021 1209

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		83	33-102
2-Fluorophenol		80	35-115
Nitrobenzene-d5		83	22-109
Phenol-d5		91	33-122
Terphenyl-d14		69	41-120
2,4,6-Tribromophenol		100	30-117

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
# = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: WE10034-001MS
Batch: 91939
Analytical Method: 8270E

Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acenaphthene	ND	150	140		20	90	12-111	05/25/2021 1557
Acenaphthylene	ND	150	120		20	82	44-122	05/25/2021 1557
Acetophenone	ND	150	120		20	77	30-130	05/25/2021 1557
Anthracene	50	150	160		20	70	16-122	05/25/2021 1557
Atrazine	ND	150	100		20	68	30-130	05/25/2021 1557
Benzaldehyde	ND	150	220	N	20	148	10-110	05/25/2021 1557
Benzo(a)anthracene	180	150	220	N	20	28	40-121	05/25/2021 1557
Benzo(a)pyrene	160	150	230		20	49	38-114	05/25/2021 1557
Benzo(b)fluoranthene	180	150	230	N	20	33	30-123	05/25/2021 1557
Benzo(g,h,i)perylene	73	150	190		20	76	40-120	05/25/2021 1557
Benzo(k)fluoranthene	81	150	180		20	66	40-126	05/25/2021 1557
1,1'-Biphenyl	ND	150	140		20	90	30-130	05/25/2021 1557
4-Bromophenyl phenyl ether	ND	150	120		20	83	30-130	05/25/2021 1557
Butyl benzyl phthalate	ND	150	190		20	128	30-130	05/25/2021 1557
Caprolactam	ND	150	81		20	54	30-130	05/25/2021 1557
Carbazole	ND	150	150		20	100	30-130	05/25/2021 1557
bis (2-Chloro-1-methylethyl) ether	ND	150	130		20	87	30-130	05/25/2021 1557
4-Chloro-3-methyl phenol	ND	150	120		20	78	30-130	05/25/2021 1557
4-Chloroaniline	ND	150	ND	N	20	0.00	17-106	05/25/2021 1557
bis(2-Chloroethoxy)methane	ND	150	120		20	81	30-130	05/25/2021 1557
bis(2-Chloroethyl)ether	ND	150	140		20	93	30-130	05/25/2021 1557
2-Chloronaphthalene	ND	150	130		20	84	30-130	05/25/2021 1557
2-Chlorophenol	ND	150	83		20	55	30-130	05/25/2021 1557
4-Chlorophenyl phenyl ether	ND	150	130		20	88	30-130	05/25/2021 1557
Chrysene	140	150	210		20	47	41-124	05/25/2021 1557
Dibenzo(a,h)anthracene	ND	150	140		20	91	38-125	05/25/2021 1557
Dibenzofuran	ND	150	160		20	105	30-130	05/25/2021 1557
3,3'-Dichlorobenzidine	ND	150	ND	N	20	0.00	10-119	05/25/2021 1557
2,4-Dichlorophenol	ND	150	99		20	66	30-130	05/25/2021 1557
Diethylphthalate	ND	150	120		20	82	30-130	05/25/2021 1557
Dimethyl phthalate	ND	150	130		20	85	30-130	05/25/2021 1557
2,4-Dimethylphenol	ND	150	130		20	86	30-130	05/25/2021 1557
Di-n-butyl phthalate	ND	150	140		20	91	30-130	05/25/2021 1557
4,6-Dinitro-2-methylphenol	ND	150	320	N	20	210	30-130	05/25/2021 1557
2,4-Dinitrophenol	ND	300	610	N	20	203	30-130	05/25/2021 1557
2,4-Dinitrotoluene	ND	150	ND	N	20	0.00	30-130	05/25/2021 1557
2,6-Dinitrotoluene	ND	150	90		20	60	30-130	05/25/2021 1557
Di-n-octylphthalate	ND	150	300	N	20	199	30-130	05/25/2021 1557
bis(2-Ethylhexyl)phthalate	ND	150	280	N	20	184	30-130	05/25/2021 1557
Fluoranthene	330	150	340	N	20	4.7	26-139	05/26/2021 1557
Fluorene	ND	150	130		20	84	18-108	05/26/2021 1557
Hexachlorobenzene	ND	150	120		20	81	30-130	05/25/2021 1557
Hexachlorobutadiene	ND	150	130		20	84	30-130	05/25/2021 1557
Hexachlorocyclopentadiene	ND	750	320		20	43	30-130	05/25/2021 1557

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
# = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MS

Sample ID: WE10034-001MS
Batch: 91939
Analytical Method: 8270E

Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Hexachloroethane	ND	150	130		20	86	30-130	05/25/2021 1557
Indeno(1,2,3-c,d)pyrene	69	150	160		20	68	42-123	05/25/2021 1557
Isophorone	ND	150	120		20	77	30-130	05/25/2021 1557
2-Methylnaphthalene	100	150	240		20	92	10-107	05/25/2021 1557
2-Methylphenol	ND	150	120		20	77	30-130	05/25/2021 1557
3-4-Methylphenol	ND	150	ND	N	20	0.00	30-130	05/25/2021 1557
Naphthalene	75	150	210		20	93	10-112	05/25/2021 1557
2-Nitroaniline	ND	150	ND	N	20	0.00	30-130	05/25/2021 1557
3-Nitroaniline	ND	150	ND	N	20	0.00	30-130	05/25/2021 1557
4-Nitroaniline	ND	150	210	N	20	142	30-130	05/25/2021 1557
Nitrobenzene	ND	150	94		20	62	30-130	05/25/2021 1557
2-Nitrophenol	ND	150	ND	N	20	0.00	30-130	05/25/2021 1557
4-Nitrophenol	ND	300	ND	N	20	0.00	30-130	05/25/2021 1557
N-Nitrosodi-n-propylamine	ND	150	100		20	68	30-130	05/25/2021 1557
N-Nitrosodiphenylamine (Diphenylamine)	ND	150	110		20	75	30-130	05/25/2021 1557
Pentachlorophenol	ND	300	ND	N	20	0.00	30-130	05/25/2021 1557
Phenanthrene	190	150	260		20	42	10-123	05/25/2021 1557
Phenol	ND	150	95		20	63	30-130	05/25/2021 1557
Pyrene	210	150	280		20	36	34-121	05/25/2021 1557
2,4,5-Trichlorophenol	ND	150	ND	N	20	0.00	30-130	05/25/2021 1557
2,4,6-Trichlorophenol	ND	150	80		20	53	30-130	05/25/2021 1557

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		77	33-102
2-Fluorophenol		52	35-115
Nitrobenzene-d5		69	22-109
Phenol-d5		57	33-122
Terphenyl-d14		85	41-120
2,4,6-Tribromophenol		42	30-117

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: WE10034-001MD
Batch: 91939
Analytical Method: 8270E

Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acenaphthene	ND	150	130		20	86	6.3	12-111	30	05/25/2021 1622
Acenaphthylene	ND	150	120		20	77	6.7	44-122	30	05/25/2021 1622
Acetophenone	ND	150	120		20	79	2.8	30-130	40	05/25/2021 1622
Anthracene	60	150	130		20	66	15	18-122	30	05/25/2021 1622
Atrazine	ND	150	95		20	63	7.2	30-130	40	05/25/2021 1622
Benzaldehyde	ND	150	210	N	20	142	4.0	10-110	40	05/25/2021 1622
Benzo(a)anthracene	160	150	170	N	20	-4.9	26	40-121	30	05/25/2021 1622
Benzo(a)pyrene	160	150	190	N	20	19	21	38-114	30	05/25/2021 1622
Benzo(b)fluoranthene	180	160	170	N	20	-1.7	26	38-123	30	05/25/2021 1622
Benzo(g,h,i)perylene	73	150	140		20	47	26	43-120	30	05/25/2021 1622
Benzo(k)fluoranthene	81	150	140		20	42	23	40-126	30	05/25/2021 1622
1,1'-Biphenyl	ND	150	130		20	86	6.3	30-130	40	05/25/2021 1622
4-Bromophenyl phenyl ether	ND	150	130		20	84	1.5	30-130	40	05/25/2021 1622
Butyl benzyl phthalate	ND	150	180		20	121	5.8	30-130	40	05/25/2021 1622
Caprolactam	ND	150	98		20	66	19	30-130	40	05/25/2021 1622
Carbazole	ND	150	140		20	95	5.3	30-130	40	05/25/2021 1622
bis (2-Chloro-1-methylethyl) ether	ND	150	140		20	96	9.6	30-130	40	05/25/2021 1622
4-Chloro-3-methyl phenol	ND	150	120		20	79	0.85	30-130	40	05/25/2021 1622
4-Chloroaniline	ND	150	ND	N	20	0.00	0.00	17-106	40	05/25/2021 1622
bis(2-Chloroethoxy)methane	ND	150	120		20	81	0.56	30-130	40	05/25/2021 1622
bis(2-Chloroethyl)ether	ND	150	140		20	91	2.0	30-130	40	05/25/2021 1622
2-Chloronaphthalene	ND	150	120		20	78	6.8	30-130	40	05/25/2021 1622
2-Chlorophenol	ND	150	86		20	57	3.1	30-130	40	05/25/2021 1622
4-Chlorophenyl phenyl ether	ND	150	130		20	87	1.3	30-130	40	05/25/2021 1622
Chrysene	140	150	150	N,+	20	6.9	34	41-124	30	05/25/2021 1622
Dibenzo(a,h)anthracene	ND	150	120		20	80	14	38-125	30	05/25/2021 1622
Dibenzofuran	ND	150	150		20	97	8.2	30-130	40	05/25/2021 1622
3,3'-Dichlorobenzidine	ND	150	ND	N	20	0.00	0.00	10-119	40	05/25/2021 1622
2,4-Dichlorophenol	ND	150	94		20	63	4.3	30-130	40	05/25/2021 1622
Diethylphthalate	ND	150	130		20	83	1.5	30-130	40	05/25/2021 1622
Dimethyl phthalate	ND	150	120		20	81	3.8	30-130	40	05/25/2021 1622
2,4-Dimethylphenol	ND	150	83	+	20	55	44	30-130	40	05/25/2021 1622
Di-n-butyl phthalate	ND	150	140		20	96	5.1	30-130	40	05/25/2021 1622
4,6-Dinitro-2-methylphenol	ND	150	320	N	20	210	0.021	30-130	40	05/25/2021 1622
2,4-Dinitrophenol	ND	300	600	N	20	201	1.4	30-130	40	05/25/2021 1622
2,4-Dinitrotoluene	ND	150	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
2,6-Dinitrotoluene	ND	150	86		20	57	4.4	30-130	40	05/25/2021 1622
Di-n-octylphthalate	ND	150	300	N	20	202	1.2	30-130	40	05/25/2021 1622
bis(2-Ethylhexyl)phthalate	ND	150	250	N	20	164	0.33	30-130	40	05/25/2021 1622
Fluoranthene	330	150	230	N,+	20	-66	37	26-133	30	05/25/2021 1622
Fluorene	ND	150	120		20	78	7.4	19-106	30	05/25/2021 1622
Hexachlorobenzene	ND	150	120		20	79	2.8	30-130	40	05/25/2021 1622
Hexachlorobutadiene	ND	150	120		20	82	2.8	30-130	40	05/25/2021 1622
Hexachlorocyclopentadiene	ND	750	300		20	40	6.6	30-130	40	05/25/2021 1622

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MSD

Sample ID: WE18034-001MD
Batch: 91939
Analytical Method: 8270E
Matrix: Solid
Prep Method: 3546
Prep Date: 05/11/2021 2048

Parameter	Sample Amount (ug/kg)	Spike Amount (ug/kg)	Result (ug/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Hexachloroethane	ND	150	120		20	80	7.9	30-130	40	05/25/2021 1622
Indeno(1,2,3-c,d)pyrene	69	150	130		20	48	21	42-123	30	05/25/2021 1622
Isophorone	ND	150	120		20	79	2.5	30-130	40	05/25/2021 1622
2-Methylnaphthalene	100	150	230		20	82	6.4	10-107	30	05/25/2021 1622
2-Methylphenol	ND	150	91		20	61	24	30-130	40	05/25/2021 1622
3+4-Methylphenol	ND	150	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
Naphthalene	75	150	200		20	84	5.9	10-112	30	05/25/2021 1622
2-Nitroaniline	ND	150	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
3-Nitroaniline	ND	150	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
4-Nitroaniline	ND	150	200	N	20	131	7.6	30-130	40	05/25/2021 1622
Nitrobenzene	ND	150	110		20	76	20	30-130	40	05/25/2021 1622
2-Nitrophenol	ND	150	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
4-Nitrophenol	ND	300	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
N-Nitrosodi-n-propylamine	ND	150	130		20	90	27	30-130	40	05/25/2021 1622
N-Nitrosodiphenylamine (Diphenylamine)	ND	150	120		20	77	1.6	30-130	40	05/25/2021 1622
Pentachlorophenol	ND	300	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
Phenanthrene	190	150	180	N,+	20	-7.3	34	16-123	30	05/25/2021 1622
Phenol	ND	150	100		20	67	5.3	30-130	40	05/25/2021 1622
Pyrene	210	150	190	N,+	20	-15	34	34-121	30	05/25/2021 1622
2,4,5-Trichlorophenol	ND	150	ND	N	20	0.00	0.00	30-130	40	05/25/2021 1622
2,4,6-Trichlorophenol	ND	150	76		20	51	4.9	30-130	40	05/25/2021 1622

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		79	33-102
2-Fluorophenol		67	35-115
Nitrobenzene-d5		80	22-109
Phenol-d5		64	33-122
Terphenyl-d14		78	41-120
2,4,6-Tribromophenol		45	30-117

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: WQ92194-001
Batch: 92194
Analytical Method: 8270E

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 05/13/2021 1422

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acenaphthene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Acenaphthylene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Acetophenone	ND		1	0.80	0.23	ug/L	05/16/2021 1405
Anthracene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Atrazine	ND		1	0.80	0.20	ug/L	05/16/2021 1405
Benzaldehyde	ND		1	4.0	0.27	ug/L	05/16/2021 1405
Benzo(a)anthracene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Benzo(a)pyrene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Benzo(b)fluoranthene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Benzo(g,h,i)perylene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Benzo(k)fluoranthene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
1,1'-Biphenyl	ND		1	0.80	0.21	ug/L	05/16/2021 1405
4-Bromophenyl phenyl ether	ND		1	0.80	0.15	ug/L	05/16/2021 1405
Butyl benzyl phthalate	ND		1	4.0	0.21	ug/L	05/16/2021 1405
Caprolactam	ND		1	4.0	0.71	ug/L	05/16/2021 1405
Carbazole	ND		1	0.80	0.040	ug/L	05/16/2021 1405
bis (2-Chloro-1-methylethyl) ether	ND		1	0.80	0.17	ug/L	05/16/2021 1405
4-Chloro-3-methyl phenol	ND		1	0.80	0.26	ug/L	05/16/2021 1405
4-Chloroaniline	ND		1	0.80	0.13	ug/L	05/16/2021 1405
bis(2-Chloroethoxy)methane	ND		1	0.80	0.060	ug/L	05/16/2021 1405
bis(2-Chloroethyl)ether	ND		1	0.80	0.16	ug/L	05/16/2021 1405
2-Chloronaphthalene	ND		1	0.80	0.15	ug/L	05/16/2021 1405
2-Chlorophenol	ND		1	0.80	0.15	ug/L	05/16/2021 1405
4-Chlorophenyl phenyl ether	ND		1	0.80	0.16	ug/L	05/16/2021 1405
Chrysene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Dibenzo(a,h)anthracene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Dibenzofuran	ND		1	0.80	0.16	ug/L	05/16/2021 1405
3,3'-Dichlorobenzidine	ND		1	4.0	0.81	ug/L	05/16/2021 1405
2,4-Dichlorophenol	ND		1	0.80	0.19	ug/L	05/16/2021 1405
Diethylphthalate	ND		1	4.0	0.19	ug/L	05/16/2021 1405
Dimethyl phthalate	ND		1	4.0	0.18	ug/L	05/16/2021 1405
2,4-Dimethylphenol	ND		1	0.80	0.15	ug/L	05/16/2021 1405
Di-n-butyl phthalate	ND		1	4.0	0.42	ug/L	05/16/2021 1405
4,6-Dinitro-2-methylphenol	ND		1	4.0	0.89	ug/L	05/16/2021 1405
2,4-Dinitrophenol	ND		1	4.0	1.3	ug/L	05/16/2021 1405
2,4-Dinitrotoluene	ND		1	1.6	0.36	ug/L	05/16/2021 1405
2,6-Dinitrotoluene	ND		1	1.6	0.34	ug/L	05/16/2021 1405
Di-n-octylphthalate	ND		1	4.0	0.48	ug/L	05/16/2021 1405
bis(2-Ethylhexyl)phthalate	**0.88**	**J**	**1**	**4.0**	**0.38**	**ug/L**	**05/16/2021 1405**
Fluoranthene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Fluorene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Hexachlorobenzene	ND		1	0.80	0.15	ug/L	05/16/2021 1405
Hexachlorobutadiene	ND		1	0.80	0.17	ug/L	05/16/2021 1405
Hexachlorocyclopentadiene	ND		1	4.0	1.1	ug/L	05/16/2021 1405

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - MB

Sample ID: WQ92194-001 **Matrix:** Aqueous
Batch: 92194 **Prep Method:** 3520C
Analytical Method: 8270E **Prep Date:** 05/13/2021 1422

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Hexachloroethane	ND		1	0.80	0.17	ug/L	05/16/2021 1405
Indeno(1,2,3-c,d)pyrene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Isophorone	ND		1	0.80	0.22	ug/L	05/16/2021 1405
2-Methylnaphthalene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
2-Methylphenol	ND		1	0.80	0.21	ug/L	05/16/2021 1405
3+4-Methylphenol	ND		1	1.6	0.46	ug/L	05/16/2021 1405
Naphthalene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
2-Nitroaniline	ND		1	1.6	0.66	ug/L	05/16/2021 1405
3-Nitroaniline	ND		1	1.6	0.15	ug/L	05/16/2021 1405
4-Nitroaniline	ND		1	1.6	1.3	ug/L	05/16/2021 1405
Nitrobenzene	ND		1	0.80	0.17	ug/L	05/16/2021 1405
2-Nitrophenol	ND		1	1.6	0.44	ug/L	05/16/2021 1405
4-Nitrophenol	ND		1	4.0	2.1	ug/L	05/16/2021 1405
N-Nitrosodi-n-propylamine	ND		1	0.80	0.28	ug/L	05/16/2021 1405
N-Nitrosodiphenylamine (Diphenylamine)	ND		1	0.80	0.50	ug/L	05/16/2021 1405
Pentachlorophenol	ND		1	4.0	1.3	ug/L	05/16/2021 1405
Phenanthrene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
Phenol	ND		1	0.80	0.19	ug/L	05/16/2021 1405
Pyrene	ND		1	0.16	0.040	ug/L	05/16/2021 1405
2,4,5-Trichlorophenol	ND		1	0.80	0.19	ug/L	05/16/2021 1405
2,4,6-Trichlorophenol	ND		1	0.80	0.22	ug/L	05/16/2021 1405

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		82	37-129
2-Fluorophenol		45	24-127
Nitrobenzene-d5		79	36-127
Phenol-d5		62	28-128
Terphenyl-d14		94	10-148
2,4,6-Tribromophenol		69	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92194-002
Batch: 92194
Analytical Method: 8270E

Matrix: Aqueous
Prep Method: 3520C
Prep Date: 05/13/2021 1422

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acenaphthene	8.0	7.8		1	98	30-122	05/16/2021 1430
Acenaphthylene	8.0	7.9		1	99	30-130	05/16/2021 1430
Acetophenone	8.0	9.7		1	122	52-125	05/16/2021 1430
Anthracene	8.0	8.3		1	104	30-123	05/16/2021 1430
Atrazine	8.0	7.3		1	91	25-121	05/16/2021 1430
Benzaldehyde	8.0	3.9		1	49	20-115	05/16/2021 1430
Benzo(a)anthracene	8.0	7.9		1	99	40-125	05/16/2021 1430
Benzo(a)pyrene	8.0	9.3		1	116	40-128	05/16/2021 1430
Benzo(b)fluoranthene	8.0	8.3		1	104	30-130	05/16/2021 1430
Benzo(g,h,i)perylene	8.0	8.0		1	100	30-130	05/16/2021 1430
Benzo(k)fluoranthene	8.0	8.0		1	100	30-130	05/16/2021 1430
1,1'-Biphenyl	8.0	8.0		1	99	42-120	05/16/2021 1430
4-Bromophenyl phenyl ether	8.0	7.5		1	93	30-124	05/16/2021 1430
Butyl benzyl phthalate	8.0	9.0		1	113	54-135	05/16/2021 1430
Caprolactam	8.0	8.1		1	101	44-152	05/16/2021 1430
Carbazole	8.0	8.4	N	1	105	45-101	05/16/2021 1430
bis (2-Chloro-1-methylethyl) ether	8.0	9.0		1	113	42-124	05/16/2021 1430
4-Chloro-3-methyl phenol	8.0	9.3		1	116	30-123	05/16/2021 1430
4-Chloroaniline	8.0	5.0		1	63	12-157	05/16/2021 1430
bis(2-Chloroethoxy)methane	8.0	8.2		1	103	44-127	05/16/2021 1430
bis(2-Chloroethyl)ether	8.0	8.9		1	112	46-120	05/16/2021 1430
2-Chloronaphthalene	8.0	8.0		1	100	46-100	05/16/2021 1430
2-Chlorophenol	8.0	7.6		1	95	50-117	05/16/2021 1430
4-Chlorophenyl phenyl ether	8.0	8.7		1	109	30-121	05/16/2021 1430
Chrysene	8.0	8.7		1	108	30-130	05/16/2021 1430
Dibenzo(a,h)anthracene	8.0	8.1		1	102	30-130	05/16/2021 1430
Dibenzofuran	8.0	8.1		1	102	30-118	05/16/2021 1430
3,3'-Dichlorobenzidine	8.0	5.0		1	62	10-126	05/16/2021 1430
2,4-Dichlorophenol	8.0	7.9		1	99	30-121	05/16/2021 1430
Diethylphthalate	8.0	9.3		1	117	40-125	05/16/2021 1430
Dimethyl phthalate	8.0	8.7		1	109	40-127	05/16/2021 1430
2,4-Dimethylphenol	8.0	7.7		1	97	20-125	05/16/2021 1430
Di-n-butyl phthalate	8.0	8.6		1	107	40-127	05/16/2021 1430
4,6-Dinitro-2-methylphenol	8.0	7.2		1	90	56-128	05/16/2021 1430
2,4-Dinitrophenol	16	12		1	74	11-126	05/16/2021 1430
2,4-Dinitrotoluene	8.0	9.8		1	123	59-127	05/16/2021 1430
2,6-Dinitrotoluene	8.0	9.0		1	112	59-126	05/16/2021 1430
Di-n-octylphthalate	8.0	7.5		1	94	50-136	05/16/2021 1430
bis(2-Ethylhexyl)phthalate	8.0	32	N	1	401	56-128	05/16/2021 1430
Fluoranthene	8.0	7.6		1	95	40-128	05/16/2021 1430
Fluorene	8.0	8.0		1	100	30-124	05/16/2021 1430
Hexachlorobenzene	8.0	6.6		1	83	30-125	05/16/2021 1430
Hexachlorobutadiene	8.0	6.6		1	83	24-110	05/16/2021 1430
Hexachlorocyclopentadiene	40	26		1	66	16-98	05/16/2021 1430

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RPD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Semivolatile Organic Compounds by GC/MS - LCS

Sample ID: WQ92194-002 **Matrix:** Aqueous
Batch: 92194 **Prep Method:** 3520C
Analytical Method: 8270E **Prep Date:** 05/13/2021 1422

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Hexachloroethane	8.0	6.5		1	81	31-110	05/16/2021 1430
Indeno(1,2,3-c,d)pyrene	8.0	7.7		1	96	30-130	05/16/2021 1430
Isophorone	8.0	10	N	1	129	57-123	05/16/2021 1430
2-Methylnaphthalene	8.0	8.3		1	104	40-132	05/16/2021 1430
2-Methylphenol	8.0	6.9		1	87	66-119	05/16/2021 1430
3+4-Methylphenol	8.0	7.8		1	98	53-119	05/16/2021 1430
Naphthalene	8.0	7.3		1	92	30-130	05/16/2021 1430
2-Nitroaniline	8.0	7.0		1	88	60-124	05/16/2021 1430
3-Nitroaniline	8.0	5.4		1	68	43-129	05/16/2021 1430
4-Nitroaniline	8.0	7.1		1	89	30-135	05/16/2021 1430
Nitrobenzene	8.0	8.8		1	110	51-122	05/16/2021 1430
2-Nitrophenol	8.0	7.1		1	89	51-118	05/16/2021 1430
4-Nitrophenol	16	18		1	115	53-130	05/16/2021 1430
N-Nitrosodi-n-propylamine	8.0	11	N	1	139	54-127	05/16/2021 1430
N-Nitrosodiphenylamine (Diphenylamine)	8.0	7.9		1	99	30-123	05/16/2021 1430
Pentachlorophenol	16	14		1	87	42-131	05/16/2021 1430
Phenanthrene	8.0	8.2		1	102	40-123	05/16/2021 1430
Phenol	8.0	7.4		1	93	49-117	05/16/2021 1430
Pyrene	8.0	8.3		1	104	40-126	05/16/2021 1430
2,4,5-Trichlorophenol	8.0	7.8		1	97	30-123	05/16/2021 1430
2,4,6-Trichlorophenol	8.0	8.2		1	103	30-125	05/16/2021 1430

Surrogate	Q	% Rec	Acceptance Limit
2-Fluorobiphenyl		90	37-129
2-Fluorophenol		75	24-127
Nitrobenzene-d5		84	38-127
Phenol-d5		87	28-128
Terphenyl-d14		90	10-148
2,4,6-Tribromophenol		64	35-144

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MB

Sample ID: WQ92120-001
Batch: 92120
Analytical Method: 6020B

Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/13/2021 0401

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Dissolved Aluminum	ND		1	40	10	ug/L	05/13/2021 1831
Dissolved Antimony	ND		1	2.0	0.50	ug/L	05/13/2021 1831
Dissolved Arsenic	ND		1	2.0	1.3	ug/L	05/13/2021 1831
Dissolved Barium	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Cadmium	ND		1	0.50	0.13	ug/L	05/13/2021 1831
Dissolved Calcium	ND		1	400	100	ug/L	05/13/2021 1831
Dissolved Chromium	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Cobalt	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Copper	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Iron	ND		1	50	13	ug/L	05/13/2021 1831
Dissolved Lead	ND		1	1.0	0.25	ug/L	05/13/2021 1831
Dissolved Magnesium	ND		1	400	50	ug/L	05/13/2021 1831
Dissolved Manganese	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Nickel	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Potassium	ND		1	400	100	ug/L	05/13/2021 1831
Dissolved Selenium	ND		1	5.0	1.3	ug/L	05/13/2021 1831
Dissolved Silver	ND		1	1.0	0.25	ug/L	05/13/2021 1831
Dissolved Sodium	ND		1	400	150	ug/L	05/13/2021 1831
Dissolved Thallium	ND		1	0.50	0.15	ug/L	05/13/2021 1831
Dissolved Vanadium	ND		1	5.0	2.5	ug/L	05/13/2021 1831
Dissolved Zinc	ND		1	10	2.5	ug/L	05/13/2021 1831

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: WQ92120-002 | **Matrix:** Aqueous
Batch: 92120 | **Prep Method:** 3005A
Analytical Method: 6020B | **Prep Date:** 05/13/2021 0401

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Dissolved Aluminum	100	110		1	106	80-120	05/13/2021 1838
Dissolved Antimony	100	99		1	99	80-120	05/13/2021 1838
Dissolved Arsenic	100	95		1	95	80-120	05/13/2021 1838
Dissolved Barium	100	98		1	98	80-120	05/13/2021 1838
Dissolved Cadmium	100	95		1	95	80-120	05/13/2021 1838
Dissolved Calcium	1000	1100		1	106	80-120	05/13/2021 1838
Dissolved Chromium	100	100		1	103	80-120	05/13/2021 1838
Dissolved Cobalt	100	110		1	105	80-120	05/13/2021 1838
Dissolved Copper	100	110		1	107	80-120	05/13/2021 1838
Dissolved Iron	1000	1100		1	105	80-120	05/13/2021 1838
Dissolved Lead	100	110		1	106	80-120	05/13/2021 1838
Dissolved Magnesium	1000	990		1	99	80-120	05/13/2021 1838
Dissolved Manganese	100	100		1	100	80-120	05/13/2021 1838
Dissolved Nickel	100	100		1	104	80-120	05/13/2021 1838
Dissolved Potassium	1000	1000		1	103	80-120	05/13/2021 1838
Dissolved Selenium	100	89		1	89	80-120	05/13/2021 1838
Dissolved Silver	100	95		1	95	80-120	05/13/2021 1838
Dissolved Sodium	1000	1000		1	100	80-120	05/13/2021 1838
Dissolved Thallium	100	100		1	104	80-120	05/13/2021 1838
Dissolved Vanadium	100	100		1	100	80-120	05/13/2021 1838
Dissolved Zinc	100	100		1	101	80-120	05/13/2021 1838

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MS

Sample ID: WE10004-006MS
Batch: 92120
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/13/2021 0401

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Dissolved Aluminum	ND	100	110		1	110	75-125	05/13/2021 1853
Dissolved Antimony	ND	100	100		1	101	75-125	05/13/2021 1853
Dissolved Arsenic	ND	100	97		1	97	75-125	05/13/2021 1853
Dissolved Barium	73	100	170		1	98	75-125	05/13/2021 1853
Dissolved Cadmium	ND	100	97		1	97	75-125	05/13/2021 1853
Dissolved Calcium	50000	1000	49000	N	10	-75	75-125	05/13/2021 2015
Dissolved Chromium	ND	100	100		1	100	75-125	05/13/2021 1853
Dissolved Cobalt	ND	100	100		1	102	75-125	05/13/2021 1853
Dissolved Copper	ND	100	100		1	102	75-125	05/13/2021 1853
Dissolved Iron	13	1000	1000		1	103	75-125	05/13/2021 1853
Dissolved Lead	ND	100	100		1	103	75-125	05/13/2021 1853
Dissolved Magnesium	8000	1000	7000		1	99	75-125	05/13/2021 1853
Dissolved Manganese	150	100	250		1	95	75-125	05/13/2021 1853
Dissolved Nickel	2.0	100	100		1	99	75-125	05/13/2021 1853
Dissolved Potassium	6900	1000	6800		1	85	75-125	05/13/2021 1853
Dissolved Selenium	ND	100	95		1	85	75-125	05/13/2021 1853
Dissolved Silver	ND	100	94		1	84	75-125	05/13/2021 1853
Dissolved Sodium	3400	1000	4300		1	85	75-125	05/13/2021 1853
Dissolved Thallium	ND	100	100		1	103	75-125	05/13/2021 1853
Dissolved Vanadium	ND	100	99		1	99	75-125	05/13/2021 1853
Dissolved Zinc	ND	100	100		1	101	75-125	05/13/2021 1853

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RPD is out of criteria
N = Recovery is out of criteria
J+ = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MSD

Sample ID: WE10034-006MD
Batch: 92120
Analytical Method: 6020B
Matrix: Aqueous
Prep Method: 3005A
Prep Date: 05/13/2021 0401

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Dissolved Aluminum	ND	100	100		1	105	1.8	75-125	20	05/13/2021 1901
Dissolved Antimony	ND	100	100		1	103	1.6	75-125	20	05/13/2021 1901
Dissolved Arsenic	ND	100	97		1	97	0.69	75-125	20	05/13/2021 1901
Dissolved Barium	73	100	180		1	102	2.5	75-125	20	05/13/2021 1901
Dissolved Cadmium	ND	100	99		1	99	1.8	75-125	20	05/13/2021 1901
Dissolved Calcium	50000	1000	51000		10	87	3.2	75-125	20	05/13/2021 2022
Dissolved Chromium	ND	100	100		1	100	0.89	75-125	20	05/13/2021 1901
Dissolved Cobalt	ND	100	100		1	103	1.1	75-125	20	05/13/2021 1901
Dissolved Copper	ND	100	100		1	103	0.68	75-125	20	05/13/2021 1901
Dissolved Iron	13	1000	1000		1	102	0.23	75-125	20	05/13/2021 1901
Dissolved Lead	ND	100	100		1	104	1.4	75-125	20	05/13/2021 1901
Dissolved Magnesium	6000	1000	7200		1	116	2.4	75-125	20	05/13/2021 1901
Dissolved Manganese	150	100	250		1	101	2.4	75-125	20	05/13/2021 1901
Dissolved Nickel	2.0	100	100		1	100	1.1	75-125	20	05/13/2021 1901
Dissolved Potassium	5900	1000	7000		1	106	3.1	75-125	20	05/13/2021 1901
Dissolved Selenium	ND	100	96		1	96	1.4	75-125	20	05/13/2021 1901
Dissolved Silver	ND	100	94		1	94	0.77	75-125	20	05/13/2021 1901
Dissolved Sodium	3400	1000	4500		1	104	4.2	75-125	20	05/13/2021 1901
Dissolved Thallium	ND	100	100		1	104	1.3	75-125	20	05/13/2021 1901
Dissolved Vanadium	ND	100	100		1	100	0.38	75-125	20	05/13/2021 1901
Dissolved Zinc	ND	100	100		1	102	0.24	75-125	20	05/13/2021 1901

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MB

Sample ID: WQ92127-001
Batch: 92127
Analytical Method: 6020B

Matrix: Solid
Prep Method: 3050B
Prep Date: 05/14/2021 0404

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Aluminum	ND		1	10	2.6	mg/kg	05/14/2021 1110
Antimony	ND		1	0.50	0.20	mg/kg	05/14/2021 1110
Arsenic	ND		1	0.50	0.20	mg/kg	05/14/2021 1110
Barium	ND		1	1.3	0.31	mg/kg	05/14/2021 1110
Beryllium	ND		1	0.10	0.034	mg/kg	05/14/2021 1110
Cadmium	ND		1	0.13	0.025	mg/kg	05/14/2021 1110
Calcium	ND		1	100	30	mg/kg	05/14/2021 1110
Chromium	**0.58**	**J**	**1**	1.3	**0.55**	**mg/kg**	**05/14/2021 1110**
Cobalt	ND		1	1.3	0.30	mg/kg	05/14/2021 1110
Copper	ND		1	1.3	0.33	mg/kg	05/14/2021 1110
Iron	ND		1	13	2.6	mg/kg	05/14/2021 1110
Lead	ND		1	0.25	0.068	mg/kg	05/14/2021 1110
Magnesium	ND		1	100	25	mg/kg	05/14/2021 1110
Manganese	ND		1	1.3	0.36	mg/kg	05/14/2021 1110
Nickel	ND		1	1.3	0.30	mg/kg	05/14/2021 1110
Potassium	ND		1	100	25	mg/kg	05/14/2021 1110
Selenium	ND		1	1.3	0.47	mg/kg	05/14/2021 1110
Silver	ND		1	0.25	0.060	mg/kg	05/14/2021 1110
Sodium	ND		1	100	37	mg/kg	05/14/2021 1110
Thallium	ND		1	0.13	0.030	mg/kg	05/14/2021 1110
Vanadium	ND		1	1.3	0.25	mg/kg	05/14/2021 1110
Zinc	ND		1	2.5	0.50	mg/kg	05/14/2021 1110

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: WQ82127-002
Batch: 82127
Analytical Method: 6020B

Matrix: Solid
Prep Method: 3050B
Prep Date: 05/14/2021 0404

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Aluminum	50	53		1	105	80-120	05/14/2021 1116
Antimony	50	49		1	97	80-120	05/14/2021 1116
Arsenic	50	50		1	100	80-120	05/14/2021 1116
Barium	50	52		1	103	80-120	05/14/2021 1116
Beryllium	50	51		1	101	80-120	05/14/2021 1116
Cadmium	50	51		1	102	80-120	05/14/2021 1116
Calcium	500	560		1	111	80-120	05/14/2021 1116
Chromium	50	51		1	102	80-120	05/14/2021 1116
Cobalt	50	51		1	101	80-120	05/14/2021 1116
Copper	50	51		1	101	80-120	05/14/2021 1116
Iron	500	540		1	106	80-120	05/14/2021 1116
Lead	50	49		1	99	80-120	05/14/2021 1116
Magnesium	500	530		1	106	80-120	05/14/2021 1116
Manganese	50	51		1	101	80-120	05/14/2021 1116
Nickel	50	50		1	100	80-120	05/14/2021 1116
Potassium	500	560		1	112	80-120	05/14/2021 1116
Selenium	50	46		1	93	80-120	05/14/2021 1116
Silver	50	52		1	104	80-120	05/14/2021 1116
Sodium	500	520		1	105	80-120	05/14/2021 1116
Thallium	50	50		1	100	80-120	05/14/2021 1116
Vanadium	50	51		1	102	80-120	05/14/2021 1116
Zinc	50	47		1	95	80-120	05/14/2021 1116

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MS

Sample ID: WE10034-001MS
Batch: 92127
Analytical Method: 8020B

Matrix: Solid
Prep Method: 3050B
Prep Date: 05/14/2021 0404

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Aluminum	43000	54	48000	N	10	8530	75-125	05/14/2021 1127
Antimony	ND	54	26	N	1	47	75-125	05/14/2021 1237
Arsenic	1.5	54	50		1	89	75-125	05/14/2021 1237
Barium	160	54	250	N	1	172	75-125	05/14/2021 1237
Beryllium	0.37	54	26	N	1	46	75-125	05/14/2021 1237
Cadmium	0.078	54	55		1	101	75-125	05/14/2021 1237
Calcium	820	540	1800	N	1	180	75-125	05/14/2021 1237
Chromium	37	54	79		1	76	75-125	05/14/2021 1237
Cobalt	11	54	61		1	91	75-125	05/14/2021 1237
Copper	28	54	90		1	118	75-125	05/14/2021 1237
Iron	41000	540	31000	N	10	-1970	75-125	05/14/2021 1127
Lead	22	54	75		1	98	75-125	05/14/2021 1237
Magnesium	2100	540	3000	N	1	151	75-125	05/14/2021 1237
Manganese	390	54	370	N	1	-25	75-125	05/14/2021 1237
Nickel	14	54	65		1	93	75-125	05/14/2021 1237
Potassium	2700	540	4000	N	1	249	75-125	05/14/2021 1237
Selenium	0.51	54	49		1	89	75-125	05/14/2021 1237
Silver	ND	54	55		1	102	75-125	05/14/2021 1237
Sodium	ND	540	410		1	75	75-125	05/14/2021 1237
Thallium	0.24	54	55		1	101	75-125	05/14/2021 1237
Vanadium	63	54	100	N	1	71	75-125	05/14/2021 1237
Zinc	54	54	120		1	120	75-125	05/14/2021 1237

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between the SC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MSD

Sample ID: WE10034-001MD
Batch: 92127
Analytical Method: 6020B
Matrix: Solid
Prep Method: 3050B
Prep Date: 05/14/2021 0404

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Aluminum	43000	55	46000	N	10	8800	6.35	75-125	20	05/14/2021 1133
Antimony	ND	66	26	N	1	46	1.9	75-125	20	05/14/2021 1243
Arsenic	1.5	55	50		1	89	0.41	75-125	20	05/14/2021 1243
Barium	160	55	240	N	1	145	5.8	75-125	20	05/14/2021 1243
Beryllium	0.37	55	27	N	1	49	6.1	75-125	20	05/14/2021 1243
Cadmium	0.078	55	56		1	102	1.2	75-125	20	05/14/2021 1243
Calcium	820	550	1400	+	1	100	28	75-125	20	05/14/2021 1243
Chromium	37	55	88		1	92	11	75-125	20	05/14/2021 1243
Cobalt	11	55	61		1	91	0.24	75-125	20	05/14/2021 1243
Copper	26	55	84		1	107	6.3	75-125	20	05/14/2021 1243
Iron	41000	550	37000	N	10	-797	19	75-125	20	05/14/2021 1133
Lead	22	66	77		1	101	2.6	75-125	20	05/14/2021 1243
Magnesium	2100	660	2800	N	1	127	4.3	75-125	20	05/14/2021 1243
Manganese	390	55	420	N	1	56	11	75-125	20	05/14/2021 1243
Nickel	14	55	65		1	94	1.3	75-125	20	05/14/2021 1243
Potassium	2700	550	4100	N	1	266	2.5	75-125	20	05/14/2021 1243
Selenium	0.51	55	50		1	91	2.0	75-125	20	05/14/2021 1243
Silver	ND	55	56		1	102	0.56	75-125	20	05/14/2021 1243
Sodium	ND	550	410		1	76	1.3	75-125	20	05/14/2021 1243
Thallium	0.24	55	56		1	102	1.8	75-125	20	05/14/2021 1243
Vanadium	63	55	110		1	83	6.6	75-125	20	05/14/2021 1243
Zinc	54	55	110		1	100	9.3	75-125	20	05/14/2021 1243

LOC = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MB

Sample ID: WQ92064-001
Batch: 92064
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 05/12/2021 1545

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Mercury	ND		1	0.083	0.020	mg/kg	05/13/2021 1557

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - LCS

Sample ID: WQ92064-002 **Matrix:** Solid
Batch: 92064 **Prep Method:** 7471B
Analytical Method: 7471B **Prep Date:** 05/12/2021 1545

Parameter	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Mercury	0.83	0.89		1	106	80-120	05/13/2021 1600

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MS

Sample ID: WE10034-001MS
Batch: 92064
Analytical Method: 7471B
Matrix: Solid
Prep Method: 7471B
Prep Date: 05/12/2021 1645

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Mercury	0.028	0.95	1.1		1	114	80-120	05/13/2021 1611

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

ICP-MS - MSD

Sample ID: WE10034-001MD
Batch: 92064
Analytical Method: 7471B

Matrix: Solid
Prep Method: 7471B
Prep Date: 05/12/2021 1545

Parameter	Sample Amount (mg/kg)	Spike Amount (mg/kg)	Result (mg/kg)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Mercury	0.028	0.96	1.1		1	116	3.3	80-120	20	05/13/2021 1613

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

CVAA - MB

Sample ID: WQ92149-001
Batch: 92149
Analytical Method: 7470A

Matrix: Aqueous
Prep Method:
Prep Date: 05/13/2021 1224

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Dissolved Mercury	ND		1	0.00020	0.000091	mg/L	05/13/2021 18:19

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and > DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

CVAA - LCS

Sample ID: WQ92149-002 **Matrix:** Aqueous
Batch: 92149 **Prep Method:**
Analytical Method: 7470A **Prep Date:** 05/13/2021 1224

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Dissolved Mercury	0.0020	0.0019		1	96	80-120	05/13/2021 1822

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RPD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

CVAA - MS

Sample ID: WE10034-007MS
Batch: 92149
Analytical Method: 7470A

Matrix: Aqueous
Prep Method:
Prep Date: 05/13/2021 1224

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Dissolved Mercury	ND	0.0020	0.0020		1	98	85-115	05/13/2021 1830

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPC between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

CVAA - MSD

Sample ID: WE13034-007MD
Batch: 92149
Analytical Method: 7470A
Matrix: Aqueous
Prep Method:
Prep Date: 05/13/2021 1224

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Dissolved Mercury	ND	0.0020	0.0020		1	99	1.4	85-115	20	05/13/2021 1832

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody
and
Miscellaneous Documents

PACE ANALYTICAL SERVICES, LLC

Pace Analytical®

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number 122100

Client	BLE
Address	6004 Ponders Court
City	Greenville
State	SC
Zip Code	29615
Project Name	Woodruffville Fire Station
Project No.	321-14542-023
P.O. No.	
Report to Contact	Daniel Motz
Sampler's Signature	x Brian Davis
Printed Name	Brian Davis
Telephone No. / E-mail	dan.motz@BLEcorp.com
Quote No.	
Page	1 of 1

WE10034

Analysis (Attach list if more space is needed): 8260 VOCs; 8270 SVOCs; Gold TAL Metals / Lab TAL Metals; Dissolved Metals

Sample ID / Description (Containers for each sample may be combined on one line)	Collection Date	Collection Time (Military)	Grab / Composite	Matrix: Aqueous	Matrix: Soil	No. of Containers: Unpres	No. of Containers: Other	8260 VOCs	8270 SVOCs	TAL Metals	Dissolved Metals	Remarks / Cooler I.D.
B-1 (2)	5-7-21	1430	G		✓	2	1	✓	✓	*		
B-2 (3.5)	↓	1440	↓		✓	↓	↓	↓	↓			
B-3 (2)	↓	1450	↓		✓	↓	↓	↓	↓			
B-4 (5)	↓	1500	↓		✓	↓	↓	↓	↓			
B-5 (2)	↓	1510	↓		✓	↓	↓	↓	↓			
GW-1	↓	1300	↓	✓		3	3	X	X		X	Metals filtered in lab
GW-2	↓	1000	↓	✓		↓	↓	↓	↓		X	Ext 1413 filtered by lab
GW-3	↓	1130	↓	✓		↓	↓	↓	↓		X	↓
GW-4	↓	1220	↓	✓		↓	↓	↓	↓		X	↓
GW-5	↓	1050	↓	✓		↓	↓	↓	↓		X	↓

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify):

Relinquished by	Date	Time	Received by	Date	Time
1. Brian Davis	5-10-21	0856	1. [signature]	5.10.21	0856
2. Brian Davis	5-10-21	1619	2.		
3.			3.		
4.			4. Laboratory received by [signature]	5/10/21	16:12

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack   Receipt Temp. 2.3 °C   Temp Blank Y N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME003K2-01

Pace Analytical

Samples Receipt Checklist (SRC) (ME001SC-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: BLE Cooler Inspected by/date: KSC / 05/10/2021 Lot #: WR15034

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: 21-445

2.3 / 2.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (<0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (if #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: KSC Date: 05/10/2021

Comments:

TOWN OF WAYNESVILLE BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: June 22, 2021

SUBJECT: Board discussion concerning adjustments to the Downtown Municipal Service District

AGENDA INFORMATION:

Agenda Location: New Business
Item Number: **E16**
Department: Board of Aldermen
Contact: Anthony Sutton, Alderman
Presenter: Anthony Sutton, Alderman

BRIEF SUMMARY:

The Board has been approached by some members of the public who own businesses within the Downtown Municipal Service District (MSD) that believe their businesses do not benefit from the extra tax levied on properties within the MSD. Alderman Anthony Sutton would like to review the current MSD map and discuss with the Board if any changes should be made, specifically, if businesses that do not enter from or exit onto Main Street should be included on the map.

MOTION FOR CONSIDERATION:

FUNDING SOURCE/IMPACT:

ATTACHMENTS:

1. Downtown Municipal Service Districts Maps

MANAGER'S COMMENTS AND RECOMMENDATIONS:

Waynesville MSD

0 75 150 300 450 600 Feet

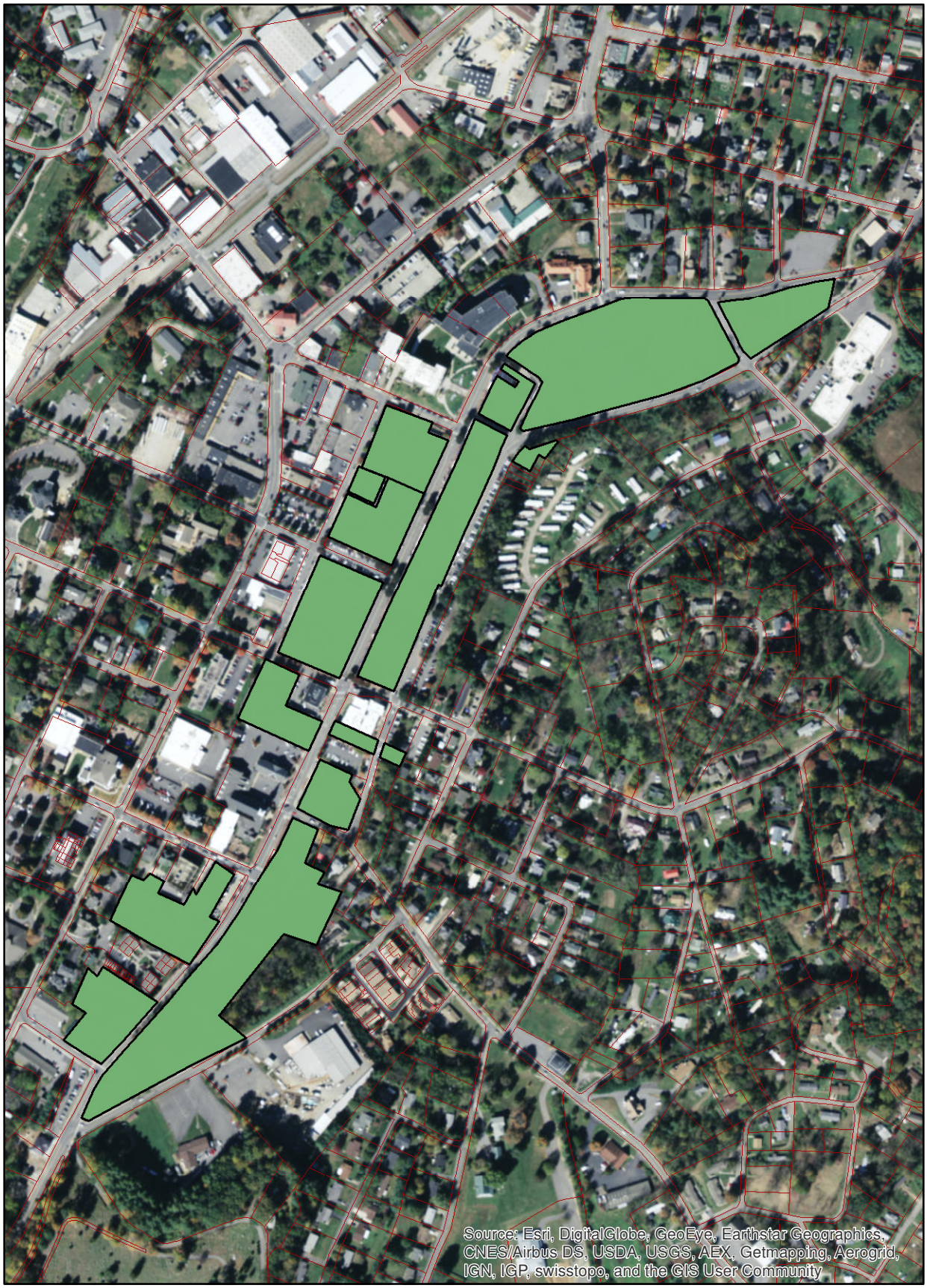
N

- Bridges
- Culvert
- Easement
- Hooks
- Hydro
- Leaders
- Railroad
- ROW
- Hwy ROW
- SR ROW
- Misc

THIS MAP IS PREPARED FOR THE INVENTORY OF REAL PROPERTY FOUND WITHIN THIS JURISDICTION, AND IS COMPILED FROM RECORDED DEEDS, PLATS, AND OTHER PUBLIC RECORDS AND DATA. USERS OF THIS MAP ARE HEREBY NOTIFIED THAT THE AFOREMENTIONED PUBLIC PRIMARY INFORMATION SOURCES SHOULD BE CONSULTED FOR VERIFICATION OF THE INFORMATION CONTAINED ON THIS MAP. HAYWOOD COUNTY ASSUMES NO LEGAL RESPONSIBILITY FOR THE INFORMATION CONTAINED ON THIS MAP.

Printing Date: Friday, January 22, 2010
File: WaynesvilleMSD.mxd
Coordinate System:
NAD 1983 StatePlane North Carolina FIPS 3200 Feet
Operating System: Microsoft Windows XP Professional
ArcMap Build Number: 9.3.1770
Haywood County GIS

Municipal Service District



0 0.125 0.25

Miles

N