LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT

RESIDENTIAL LOT
2465 BROWN LANE
FLORISSANT, MISSOURI

Prepared for:

Promise
COMMUNITY HOMES

Prepared by:

NPN ENVIRONMENTAL
30 YEARS
SINCE 1993

Contract C-25174
September 2025

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QUALITY ASSURANCE/QUALITY CONTROL

Project: Limited Phase II Environmental Site Assessment
Residential Lot
2465 Brown Lane
Florissant, Missouri

Project No.: Contract C-25174

This report has been prepared on behalf of and for the exclusive use of Promise Community Homes solely for the purpose of documenting the above-titled project. This report and all documents contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party in whole or in part, without written consent of NPN Environmental Engineers, Inc. and Promise Community Homes.

However, NPN Environmental acknowledges and agrees that the report may be conveyed to the lending institutes and prospective parties associated with leasing and/or financial transactions regarding the subject property.

As part of NPN Environmental's QA/QC practices and procedures, this report has been reviewed and approved by the following:

Project Manager: G Leston Porter Jr
G. Leston Porter, Jr., RG, CHMM

QA/QC Manager: Kimberly A. Polacek
Kimberly A. Polacek

It is the professional opinion of David B. Rowe, P.E., BCEE, a Registered Professional Engineer licensed to practice in the State of Missouri, that accepted and sound industry practices and standards were employed on this project.

Name: David B. Rowe, P.E.
Title: Principal

Signature: Digitally signed by David Rowe - NPN Date: 2025.09.29 14:02:55 -05'00'

Date: September 29, 2025

Missouri Registration Number
E-24039

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LIST OF ACRONYMS AND ABBREVIATIONS

B/VCP	Brownfields/Voluntary Cleanup Program
COC	Chemical of Concern
DRO	Diesel Range Organics
DTL	Default Target Levels
EDB	Ethylene Dibromide
EDC	Ethylene Dichloride
ESA	Environmental Site Assessment
GRO	Gasoline Range Organics
LNAPL	Light Non-Aqueous Phase Liquid
MDNR	Missouri Department of Natural Resources
MRBCA	Missouri Risk-Based Corrective Action
ORO	Oil Range Organics
PID	Photoionization Detector
PVC	Polyvinyl Chloride
RBTL	Risk-Based Target Level
RCRA	Resource Conservation and Recovery Act
TPH	Total Petroleum Hydrocarbons
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

Introduction

NPN Environmental was retained by Mr. Matt Elmore (Promise Community Homes) to complete a Limited Phase II ESA at property identified as a residential lot at 2465 Brown Lane, Florissant, Missouri (*Figure 1 – Site Location Map* in *Appendix A*).

The property consists of a ±2.6-acre residential lot with one approximate 2700 square foot 2-story residence with 2 barns. One barn is currently used for storage and the other is in disrepair and unused. Prior to the residence, the property was utilized for agricultural use or grassland.

Background

A previous *Phase I ESA* report[1] completed by Terracon identified the following environmental concerns at the referenced property including but not limited to the following:

- **Former upgradient salvage yard.** Former salvage yard operated in the south adjoining property from at least the 1950s to the 1980s.
- **Former upgradient service station.** Former gasoline service stations operated at 2575 North Highway 67 from at least 1979 to 1982.

Due to the potential environmental impact associated with the above listed concerns, the following limited Phase II ESA was conducted to determine whether the former salvage yard and service station have significantly impacted the site.

Regulatory

Environmental concerns in Missouri that pertain to contaminants discovered through property transactions are often regulated by MDNR through the B/VCP. Currently, the B/VCP recommends comparing soil and groundwater analytical results to regulatory target levels set forth in MDNR's *2006 MRBCA Technical Guidance* document[2]. The purpose of this document is to provide a framework for cleanup decisions that facilitate the constructive use of contaminated sites by protecting human health and the environment in the context of current and future site use.

For sites that contain petroleum storage tanks that would be regulated through the Hazardous Waste Program, Tank Section, soil and groundwater regulatory target levels are set forth in MDNR's *2013 Petroleum Storage Tanks Guidance* document[3]. The levels established in the October 2013 revision correspond to the sandy soil levels included in the *2006 MRBCA Technical Guidance.*

[1] Terracon. 2025. *Phase I Environmental Site Assessment – Residential Lot*. Project No. 15257239. August 5.
[2] Missouri DNR. 2006. *Departmental Missouri Risk-Based Corrective Action (MRBCA) Technical Guidance*. June.
[3] Missouri DNR. 2013. *Missouri Risk-Based Corrective Action Process for Petroleum Storage Tanks*. October 17.

For the purpose of this Phase II ESA, analytical results including the results used to evaluate the former USTs are compared to the *2006 MRBCA Technical Guidance*. These regulatory target levels correspond to the target levels for sandy soil established in the *2013 Petroleum Storage Tanks Guidance*.

Site-Specific Target Levels

Under the MRBCA process, several tiers of cleanup target levels have been developed that provide an acceptable level of protection to human health, public welfare, and the environment. Cleanup target levels are broken down by soil type (sandy, silty, or clayey) and by potential receptor (Residential, Non-Residential, Construction Worker).

DTLs are the levels necessary to quantify and protect receptors from all complete exposure pathways for unrestricted use. DTLs are the most conservative chemical and medium-specific concentrations that allow unrestricted use of the property. For each COC and each medium, the DTL is the lowest of the Tier 1 RBTLs.

Tier 1 RBTLs are cleanup levels protective of human health, public welfare, and the environment based upon the receptor, land use, soil type, and pathway. Tier 1 RBTLs are generic values developed by MDNR using conservative default parameters that depend on the predominant vadose zone soil type, receptor, media, pathway, route of exposure, and domestic use or likely use of impacted or threatened groundwater.

The subject site is developed as Residential and the predominant soil type at the site is silty clay. MDNR typically requires commercial properties such as schools, day care facilities, churches, retirement communities, etc., to be compared to residential target levels. For this site, analytical results were compared to the target levels established in the *2006 MRBCA Technical Guidance* document. Although the soil types are clay and silt, the results were compared to the most conservative sandy soil target levels, which corresponds to the target levels established for petroleum storage tanks. The soil and groundwater sample results were compared to DTLs and the Residential Tier 1 RBTLs for sandy soil.

Limited Phase II ESA

A subsurface investigation was completed in September 2025 to address the concerns associated with the former upgradient salvage yard and service station. Soil and groundwater characteristics were evaluated in the field with samples taken for laboratory analysis. Each boring location was measured in relation to other site features for creating a site diagram.

Three boring locations were established based upon property features and/or anticipated groundwater gradient and are described below and shown on *Figure 2 – Boring and Sample Locations* in *Appendix A*. Each boring location was marked in the field with a safety cone and the boring identification number.

- Former salvage yard – Two borings: One boring (B-01) in the southwest property corner, downgradient of former salvage yard and one boring (B-02) downgradient of former salvage yard. Both borings were completed

to 20 feet below surface level (bsl) and converted to temporary monitoring wells.

- Former service station – One boring: One boring (B-03) in the southeast property corner, downgradient to crossgradient of former service station to 20 feet bsl and converted to temporary monitoring well.

Subsurface Investigation

In accordance with state law, the Missouri One Call was contacted by the drilling company for an underground utility locate at the property prior to site activities. All boring locations were established a minimum of two feet from the outer boundary of identified utilities. Overhead utilities at the site did not interfere with planned boring locations.

Soil Borings

Soil borings were completed on September 12, 2025 by Roberts Environmental Drilling Inc. (Missouri Well Drillers Permit Number 001148WPM) utilizing direct-push sampling equipment and dual tube or stainless steel sampling devices. The borings were advanced to refusal, at a maximum depth of 20 feet bsl. Subsurface geology in the areas of investigation consists predominantly of brown and gray silty clay. Soil samples were collected continuously to depth and described in the field. The depth and description of the collected soil samples are provided on the boring logs in *Appendix C – Boring Logs and Monitoring Well Plugging Record*.

A PID was utilized for field screening the collected soil samples for volatile compounds. Recordable PID readings (if detected during soil sampling activities) are included on the boring logs.

Soil boring locations completed with a temporary monitoring well were constructed of one-inch inside diameter PVC riser and screen (0.010-inch slotted) for collection of groundwater samples. The screen was installed in the lower 15 feet of each borehole to intersect the groundwater table.

At project completion, temporary wells were removed and the open boreholes properly abandoned in accordance with MDNR standards. Each borehole was filled with bentonite from the bottom up and hydrated to seal the borehole. A Monitoring Well Plugging Record was submitted to MDNR to document plugging of the boreholes and is included after the Boring Logs in *Appendix C*.

Sampling Protocol

The collected soil samples were identified by three fields and the first field identifies the samples were collected from a soil boring. The second field identifies the boring location from which the sample originates. The third field identifies the lower depth of the interval from which the sample was collected.

Soil Sample B-01-16 would indicate:

B – Sample collected from a soil boring
01 – Boring location number
16 – Lower depth of the sample interval is 16 feet bsl

Soil samples were placed in laboratory-supplied containers, labeled, kept cool, and shipped under chain-of-custody protocol to Pace National in Mt. Juliet, Tennessee. Soil samples for each environmental concern were submitted for analysis in accordance with USEPA analytical methods under normal turnaround time. The soil samples were analyzed by one or more of the following methods:

- Volatiles (VOC) by Method 8260
- Naphthalene by Method 8260
- EDB and EDC by Method 8260
- Oxygenates by Method 8260
- Total Petroleum Hydrocarbons
  - TPH-Gasoline (TPH-GRO) by Method 8260
  - Diesel Range Organics (TPH-DRO) by Method 8270
  - Oil Range Organics (TPH-ORO) by Method 8270
- Total 6 RCRA Metals by Method 6010

In addition, each soil sample was tested for percent moisture, allowing reporting of VOC and TPH on a dry weight basis.

For borings that were completed as temporary monitoring wells, the same boring location number was used to identify the temporary monitoring well. For example, boring B-01 was converted to temporary monitoring well TMW-01.

For groundwater samples, the first field was designated by "TMW" which stands for temporary monitoring well and the third field represents groundwater designated by "GW". All depths are measured from surface level at time of sampling.

Groundwater Sample TMW-01-GW would indicate:

TMW – Sample collected from a temporary monitoring well
01 – Boring location number
GW – Groundwater sample

After the water table was allowed to stabilize for approximately 72 hours, the depth to water was gauged with an electronic interface probe prior to sampling.

Groundwater samples were collected from each well with new disposable bailers, placed in laboratory-supplied containers, labeled, kept cool, and shipped under chain-of-custody protocol to the laboratory. The groundwater samples were submitted for analysis for the same parameters as the soil samples.

Petroleum Characteristics

The primary service station and/or salvage yard contaminants are petroleum products which include gasoline, diesel, and oil. Petroleum products are composed primarily of hydrogen and carbon (hydrocarbons) and have molecular structures of alkanes, cycloalkanes, and various aromatic hydrocarbons. Due to the chemical makeup and structure of petroleum compounds, these compounds are lighter than water.

Since these compounds are lighter than water and not readily water soluble, they are commonly referred to as LNAPL. Once a petroleum product is released to the environment, it will migrate through the subsurface and stop at the height of the water table because the LNAPL is less dense than water. Petroleum products tend to spread across the surface of the water table and form a layer on top of the water table.

Former Upgradient Salvage Yard

Two borings were completed on September 12, 2025 to address the former upgradient salvage yard located along the north side of North Highway 67. One boring (B-01) was located approximately 20 feet downgradient of the former salvage yard in the southwest property corner and one boring (B-02) approximately 25 feet downgradient. Soil was continuously collected to a depth below the anticipated water table. One soil sample was collected for analysis from each boring at the water table interface. Evidence of groundwater was encountered in each boring during drilling.

Boring locations B-01 and B-02 were advanced to 20 feet bsl downgradient of the former salvage yard with subsurface geology consisting of brown and gray, silty clay. Based on PID readings and visual/olfactory observations, no evidence of contamination was detected during sampling activities. After 72 hours, groundwater was encountered in temporary monitoring well locations TMW-01 (15.29 feet bsl) and TMW-02 (13.24 feet bsl).

Subsurface soil samples B-01-16 and B-02-14 were collected for analysis of VOCs, EDB/EDC, Oxygenates, TPH-GRO/DRO/ORO, and 6 RCRA Metals. The sample from boring B-01 did not exhibit any detectable VOC, EDB/EDC, Oxygenates, or TPH-GRO/DRO/ORO concentrations above laboratory reporting limits. Sample B-02-14 exhibited a Toluene concentration above the laboratory reporting limit; however, the detected concentration was well below the MDNR DTL. Samples B-01-16 and B-02-14 for lead and B-01-16 for Arsenic exhibited detectable concentrations above the DTLs. Both samples were obtained in native silty clay. Samples from urban settings may contain higher arsenic and lead concentrations in developed areas and should be evaluated on a site-specific basis to obtain a background level. Arsenic and lead are naturally-occurring compounds and comparison of site concentrations to USGS county-specific values[4] can be used to develop site background levels. Using the St. Louis County average concentration plus two standard deviations from this report would establish background levels for Arsenic at 17.18 mg/kg and Lead at 81.30 mg/kg. All samples were below the site-specific background levels for Arsenic and Lead.

[4] USGS. *National Geochemical Survey – Database and Documentation*. Retrieved August 2024 from https://mrdata.usgs.gov/geochem/doc/averages/countydata.htm.

Groundwater samples TMW-01-GW and TMW-02-GW were collected for analysis of VOCs, EDB/EDC, Oxygenates, TPH-GRO/DRO/ORO, and 6 RCRA Metals. No VOCs, EDB/EDC, OXY, or TPH-GRO/DRO/ORO were detected above laboratory reporting limits. Both samples exhibited a dissolved Barium concentration above the laboratory reporting limit; however, the detected concentration was well below the MDNR DTL.

Former Upgradient Service Station/UST Concern

One boring was completed on September 12, 2025 to address the former upgradient to crossgradient service station located on the north side of North Highway 67 (Lindbergh Boulevard). One boring (B-03) was located approximately 100 feet downgradient of the former service station in the southeast property corner. Soil was continuously collected to a depth below the anticipated water table. One soil sample was collected for analysis from the boring at the water table interface. Evidence of groundwater was encountered in the boring during drilling.

Boring location B-03 was advanced to 20 feet bsl downgradient to crossgradient of the former service station, with subsurface geology consisting of brown and gray, silty clay. Based on PID readings and visual/olfactory observations, no evidence of contamination was detected during sampling activities. After 72 hours, groundwater was encountered in temporary monitoring well location TMW-03 (11.45 feet bsl).

Subsurface soil sample B-03-12 was collected for analysis of VOCs, EDB/EDC, Oxygenates, TPH-GRO/DRO/ORO, and 6 RCRA Metals. Sample B-03-12 exhibited a Toluene concentration above the laboratory reporting limit; however, the detected concentration was well below the MDNR DTL. The detected metal concentrations were within the normally occurring background range for Missouri soil; however, Arsenic and Lead levels were above the DTLs. The detected Arsenic and Lead concentrations were below the site-specific background levels established for St. Louis County.

Groundwater sample TMW-03-GW was collected for analysis of VOCs, EDB/EDC, Oxygenates, TPH-GRO/DRO/ORO, and 6 RCRA Metals. No VOCs, EDB/EDC, Oxygenates, or TPH-GRO/DRO/ORO were detected above laboratory reporting limits. The groundwater sample exhibited detected metal concentrations for Arsenic, Barium, Chromium, and Lead above laboratory detection limits. Detected concentrations were below MDNR DTLs, except Arsenic and Lead which were above the DTL but below site appropriate RBTLs. The elevated metal concentrations in the groundwater sample were likely due to suspended solids present in the unfiltered sample. DTLs for groundwater samples are based on domestic use (drinking water) standards, which would not apply to this property where a municipal water supply is provided.

Laboratory Analysis Summary

Analytical results from the soil and groundwater sampling have been summarized in the following tables (included in *Appendix B*):

- **Table 1 – Soil Sampling Results, Default Target Levels**
- **Table 2 – Groundwater Sampling Results, Default Target Levels**

In the analytical summary tables, sample results detected above the laboratory reporting limit but below regulatory target levels are presented unshaded. For samples that exhibited a concentration above site appropriate RBTLs, a gradational shading pattern is applied to visually portray the magnitude of exceedance.

The sample results can be found in the laboratory analysis included in *Appendix D – Laboratory Reports*.

Since no concentrations were detected above MDNR's DTLs except Arsenic and Lead in the soil and one of the groundwater samples, subsurface soil and groundwater sample results are not provided on figures. Although Arsenic and Lead exceeded the DTLs in subsurface soil and groundwater, all detected concentrations were below the site appropriate Residential RBTLs and soil levels were below the established background levels.

Findings

To address the environmental concerns with the former salvage yard and service station, 3 borings (2 for the former salvage yard and 1 for the former service station) were completed at the site for soil and groundwater sampling. For the former salvage yard, both borings were positioned downgradient, one boring was completed in the southwest property corner and one boring along the southern property boundary approximately 119 feet from the southwest property corner. At the former service station, one boring was completed in the southeast property corner downgradient of the former service station.

From the *MRBCA Technical Guidance*, the soil and groundwater sample results were compared to the most stringent cleanup levels (DTLs) as well as site-appropriate Residential Tier 1 RBTLs for sandy soil.

Former Upgradient Salvage Yard Concern

Two borings to 20 feet bsl were completed along the southern property boundary and downgradient of the former salvage yard with subsurface soil and groundwater samples obtained to evaluate the former upgradient salvage yard concern. Both borings were advanced to a depth below the anticipated water table and converted into temporary monitoring wells. No odors or visual evidence of contamination were detected in either of the borings. Groundwater samples were taken from the temporary monitoring wells after approximately 72 hours. Soil and groundwater samples were submitted for laboratory analysis by VOCs, EDB/EDC, Oxygenates, TPH-GRO/DRO/ORO, and 6 RCRA Metals.

One subsurface soil sample was collected from each boring from the sample interval at the depth of groundwater. Petroleum contaminants were not detected above laboratory reporting limits in the subsurface soil samples, except Toluene in B-02. The detected Toluene concentration was slightly above the laboratory reporting limit but well below MDNR's DTL. Detected metal concentrations were below the USGS site-specific background levels for Arsenic and Lead.

The two boring locations were completed with temporary monitoring wells for evaluation of groundwater. After approximately 72 hours, groundwater was encountered in TMW-01 (15.29 feet bsl) and TMW-02 (13.24 feet bsl). Petroleum contaminants were not detected above laboratory reporting limits in the groundwater samples. Although metal concentrations were detected in both groundwater samples for Barium, both detected concentrations were below DTLs (drinking water standards).

Former Upgradient Service Station/UST Concern

One boring to 20 feet bsl was completed in the southeast property corner downgradient of the former service station, with subsurface soil and groundwater samples obtained to evaluate the former upgradient service station concern. The boring was advanced to a depth below the anticipated water table and converted into a temporary monitoring well. No odors or visual evidence of contamination were detected in the boring. A groundwater sample was taken from the temporary monitoring well after approximately 72 hours. Soil and groundwater samples were submitted for laboratory analysis by VOCs, EDB/EDC, Oxygenates, TPH-GRO/DRO/ORO, and 6 RCRA Metals.

One subsurface soil sample was collected from the boring from the sample interval at the depth of groundwater. Petroleum contaminants were not detected above laboratory reporting limits in the subsurface soil sample, except Toluene. The detected Toluene concentration was slightly above the laboratory reporting limit but well below MDNR's DTL. Detected metal concentrations were below the USGS established background levels.

The boring location was completed with temporary monitoring well for evaluation of groundwater. After approximately 72 hours, groundwater was encountered in TMW-03 (11.45 feet bsl). Petroleum contaminants were not detected above laboratory reporting limits in the groundwater sample. Detected metal concentrations in the groundwater sample were below DTLs (drinking water standards), except Arsenic and Lead. Arsenic and Lead levels met the site appropriate RBTLs and likely exceeded the drinking water standards due to suspended solids in the unfiltered groundwater sample. Drinking water standards would not apply to this property where a municipal water supply is provided.

Conclusions

A subsurface site investigation with soil and groundwater sampling was completed in September 2025 at the residential lot at 2465 Brown Lane to evaluate potential site impacts from an upgradient former salvage yard and service station. Based on surface topography, anticipated groundwater flow direction in the area is to the north.

Former Upgradient Salvage Yard Concern

Toluene was detected at a concentration well below MDNR DTL in a subsurface soil sample downgradient of the former salvage yard and detected metal concentrations were below site-specific background levels. As no Toluene or other petroleum constituents were detected in the groundwater samples to investigate this concern, the detected concentration may not be associated with the former salvage yard.

Groundwater results only exhibited detectable Barium concentrations above the laboratory detection limits, but at levels below the DTLs (drinking water standards). Based on the soil and groundwater results, it does not appear the former upgradient salvage yard represents a significant environmental liability and no further investigation is recommended.

Former Upgradient Service Station/UST Concern

Soil samples downgradient to crossgradient of a former off-site gasoline service station indicate no petroleum contaminants at or above MDNR's DTL. Detected metal concentrations in the subsurface soil sample were below site-specific background levels.

Groundwater results only exhibited detectable metal concentrations in the unfiltered sample that are likely from suspended solids in the sample. Two detected concentrations were over the drinking water standards, which are not applicable in the area where ordinances require connection to the municipal supplied water system. All other site appropriate Residential RBTLs were met.

It does not appear the former upgradient to crossgradient service station represents a significant environmental liability and no further investigation is recommended.

Summary

For the former upgradient salvage yard and service station concerns, subsurface soil is minimally impacted in two areas along the southern property boundary. The detected petroleum levels are well below MDNR's most conservative regulatory level and metal concentrations are below site-specific background levels. Groundwater exhibited no petroleum concentrations and detected metal concentrations met the site appropriate RBTLs.

The former salvage yard and service station concerns do not appear to represent a significant risk to human health or the environment and no further action is recommended.

No other potential environmental concerns impacting this property were observed during Limited Phase II ESA site activities.

Photographic documentation is provided in *Appendix E – Photographic Log*.

Statement of Limitations

This report has been prepared in accordance with generally accepted industry practices and was performed in a professional manner. Liability of NPN Environmental, with respect to our findings and conclusions, is limited to the scope of the limited Phase II ESA as set forth herein. The findings of this report are applicable and representative of conditions encountered at the investigative boring locations on the date of this evaluation and may not represent conditions or other locations on the subject property or at a later date.

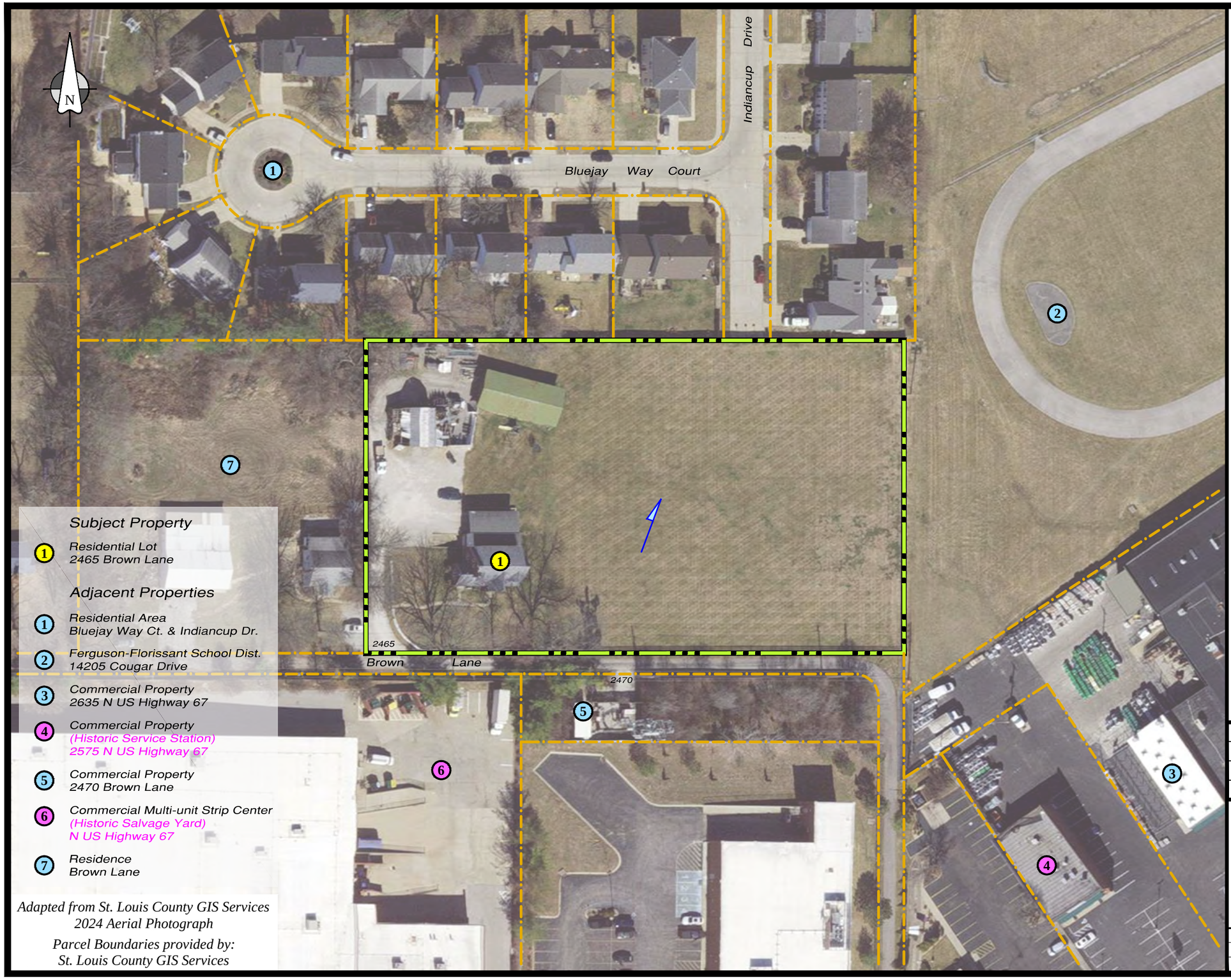
Although soil and groundwater sample results determined during this Phase II were compared to MRBCA cleanup target levels for the purpose of establishing relative levels of environmental impact, this Phase II was not completed to meet the technical requirements for an MRBCA Site Characterization and does not include an evaluation of all potential receptor pathways or ecological risks.

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPENDIX A

Figures

Figure 1 – Site Location Map
Figure 2 – Boring Locations



Subject Property

1 Residential Lot
2465 Brown Lane

Adjacent Properties

1 Residential Area
Bluejay Way Ct. & Indiancup Dr.

2 Ferguson-Florissant School Dist.
14205 Cougar Drive

3 Commercial Property
2635 N US Highway 67

4 Commercial Property
(Historic Service Station)
2575 N US Highway 67

5 Commercial Property
2470 Brown Lane

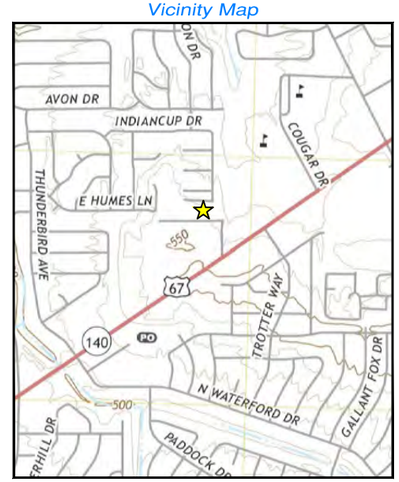
6 Commercial Multi-unit Strip Center
(Historic Salvage Yard)
N US Highway 67

7 Residence
Brown Lane

Adapted from St. Louis County GIS Services
2024 Aerial Photograph

Parcel Boundaries provided by:
St. Louis County GIS Services

Vicinity Map



Adapted from Creve Coeur, MO.
USGS 7.5 minute Quadrangle Map
2021

Legend

- Property Boundary
- Parcel Boundary
- Surface Slope (3-4 Degrees)

Facility Information

Residential Lot
2465 Brown Lane
Florissant, Missouri

Facility Size = 2.62 Acre

Latitude: 38° 48' 24" N
Longitude: 90° 18' 28" W

Magenta Represents
Recognized Environmental Condition

Drawing Revisions

NO.	DATE	BY	DESCRIPTION

NPN ENVIRONMENTAL

Site Location Map

Address: 2465 Brown Lane		Site: Residential Lot	
Location: Florissant, Missouri		Date: September 2025	Figure 1
Project No: C-25174	Scale: NONE	Drawn: SRR	

Adapted from St. Louis County GIS Services 2024 Aerial Photograph

Legend

- *Property Boundary*
- *Anticipated Groundwater Flow Direction*
- *Boring Location*

Drilling Event

B-01 thru B-03 *September 2025*

Graphic Scale in Feet

0 40' 80'

Sample Date: September 15, 2025

Drawing Revisions

NO.	DATE	BY	DESCRIPTION

NPN ENVIRONMENTAL

Boring and Sample Locations

Address: 2465 Brown Lane		Site: Residential Lot	
Location: Florissant, Missouri		Date: September 2025	Figure 2
Project No: C-25174	Scale: 1" = 40.0'	Drawn: SRR	

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPENDIX B

Tables

Table 1 – Soil Sample Results, Default Target Levels
Table 2 – Groundwater Sampling Results, Default Target Levels

TABLE 1
Soil Sampling Results (mg/kg)
Default Target Levels

C-25174 Residential Lot 2465 Brown Lane Florissant, MO	REGULATORY LEVEL[1] Soil Type 1 (Sandy)			Sample ID	B-01-16	B-02-14	B-03-12		
				Depth	14-16'	12-14'	10-12'		
				Sample Date	9/12/2025	9/12/2025	9/12/2025		
	DTL	Residential		Matrix	Native	Native	Native		
Chemical of Concern	**DTL**	Surficial Soil	Subsurface Soil	Water Depth Boring Depth	15.29' bsl 20.00' bsl	13.24' bsl 20.00' bsl	11.45' bsl 20.00' bsl		
VOC (Method 8260)				**CAS #**					
Benzene	0.0561	177	0.378	71-43-2	<0.00126	<0.00125	<0.00128		
Toluene	29.8	6210	499	108-88-3	<0.00629	0.00679	0.00866		
Ethylbenzene	39.9	7450	193	100-41-4	<0.00126	<0.00125	<0.00128		
Xylenes (total)	24.7	7830	24.7	1330-20-7	<0.00377	<0.00375	<0.00383		
Naphthalene[2]	0.325	36.3	25.9	91-20-3	<0.00629	<0.00626	<0.00638		
Oxygenates (Method 8260)									
MTBE	0.398	3450	21.6	1634-04-4	<0.00126	<0.00125	<0.00128		
TAME	0.677	2500	5.86	994-05-8	<0.00126	<0.00125	<0.00128		
TBA	0.558	6110	1030	75-65-0	<0.00629	<0.00626	<0.00638		
ETBE	0.106	78.1	25.8	637-92-3	<0.00126	<0.00125	<0.00128		
DIPE	4.12	6910	33.0	108-20-3	<0.00126	<0.00125	<0.00128		
TPH (Method 8260/8270)									
TPH-GRO	385	354000	385.0	NA	<0.629	<0.626	<0.638		
TPH-DRO	4150	140000	4150.0	NA	<12.600	<12.500	<12.800		
TPH-ORO	124000	124000	NA	NA	<12.600	<12.500	<12.800		
Metals (Method 6010)									
Arsenic	3.89	3.89	NA	7440-38-2	**6.410**	<2.500	**5.980**		
Barium	2040	15000	NA	7440-39-3	71.000	69.300	128.000		
Cadmium	9.31	16.8	NA	7440-43-9	<0.629	<0.626	0.638		
Chromium (total)	74600	74600	NA	7440-47-3	20.200	14.500	20.400		
Lead	3.74	260	260	7439-92-1	**10.000**	**9.310**	**14.400**		
Selenium	6.27	380	NA	7782-49-2	<2.520	<2.500	<2.550		

Notes:

[1] MRBCA-Technical Guidance, Appendix B
Default Target Level (Table B-1, June 2006)

COC Concentration Compared to Selected Exposure Pathway

Default Target Level	*Shading*
Up to 10x	**40.00**
10x to 100x	**80.00**
>100x	**801.00**

Site-Specific Background Levels
Arsenic = 17.18 mg/kg
Lead = 81.30 mg/kg

TABLE 2
Groundwater Sampling Results (mg/L)
Default Target Levels

C-25174 ***Residential Lot*** ***2465 Brown Lane*** ***Florissant, MO***	**REGULATORY LEVEL[1]** **Soil Type 1 (Sandy)**				**Sample ID**	**TMW-01-GW**	**TMW-02-GW**	**TMW-03-GW**	
					GW Elev	NA	NA	NA	
					Sample Date	9/15/2025	9/15/2025	9/15/2025	
	DTL	Residential			Matrix	Groundwater	Groundwater	Groundwater	
Chemical of Concern	**DTL**	Indoor Inhalation	Dermal[2] Contact	Domestic Use	Water Depth Boring Depth	15.29' bsl 20.00' bsl	13.24' bsl 20.00' bsl	11.45' bsl 20.00' bsl	
VOC (Method 8260)					**CAS #**				
Benzene	0.005	1.0	0.292	0.005	71-43-2	<0.00100	<0.00100	<0.00100	
Toluene	1.000	508.0	8.58	1.0	108-88-3	<0.00100	<0.00100	<0.00100	
Ethylbenzene	0.700	103.0	6.34	0.7	100-41-4	<0.00100	<0.00100	<0.00100	
Xylenes (total)	10.000	11.8	21.3	10.0	1330-20-7	<0.00300	<0.00300	<0.00300	
EDB	0.00005	0.23	0.0141	0.00005	106-93-4	*<0.00100*	*<0.00100*	*<0.00100*	
EDC	0.005	0.862	0.353	0.005	107-06-2	<0.00100	<0.00100	<0.00100	
Naphthalene	0.00109	2.250	0.0206	0.00109	91-20-3	*<0.00500*	*<0.00500*	*<0.00500*	
Oxygenates (Method 8260)									
MTBE	0.128	181.0	23.5	0.128	1634-04-4	<0.00100	<0.00100	<0.00100	
TAME	0.083	20.6	18.6	0.0828	994-05-8	<0.00100	<0.00100	<0.00100	
TBA	0.286	13200.0	152.0	0.286	75-65-0	<0.02000	<0.02000	<0.02000	
ETBE	0.0144	99.0	0.5	0.0144	637-92-3	<0.00100	<0.00100	<0.00100	
DIPE	0.351	81.900	34.8	0.351	108-20-3	<0.00100	<0.00100	<0.00100	
TPH (Method 8260/8270)									
TPH-GRO	18.1	20.8	NA	18.1	NA	<0.500	<0.500	<0.500	
TPH-DRO	34.3	117.0	NA	34.3	NA	<1.000	<1.000	<1.000	
TPH-ORO	31.8	NA	NA	31.8	NA	<1.000	<1.000	<1.000	
Metals (Method 6010)									
Arsenic	0.010	NA	0.158	0.010	7440-38-2	<0.0100	<0.0100	**0.0124**	
Barium	2.000	NA	1120	2.000	7440-39-3	0.2200	0.1800	0.2650	
Cadmium	0.005	NA	0.625	0.005	7440-43-9	<0.0020	<0.0020	<0.0020	
Chromium (total)	0.100	NA	8380	0.100	7440-47-3	<0.0100	<0.0100	0.0163	
Lead	0.015	NA	NA	0.015	7439-92-1	<0.0060	<0.0060	**0.0202**	
Selenium	0.050	NA	27.9	0.050	7782-49-2	<0.0100	<0.0100	<0.0100	

Notes:

[1] *MDNR MRBCA-Technical Guidance, Appendix B* *Default Target Level (Table B-1, June 2006)*
Italic indicates LAB REPORTING LIMIT above Default Target Level.

COC Concentration Compared to Selected Exposure Pathway

Default Target Level	*Shading*
Up to 10x	**40.00**
10x to 100x	**80.00**
>100x	**801.00**

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPENDIX C

Boring and Monitoring Wells

C1 – Boring Logs
C2 – Well Plugging Record

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

C1 – Boring Logs

LOG OF BORING B-01
(TMW-01)

Residential Lot
2465 Brown Lane
St. Louis, Missouri

Project Number: C-25174

Project Manager	: G.L. Porter	Water Level	: DRY on 9/12/25
Date	: 9/12/25	Total Depth	: 20.0'
Time Started	: 09:42	Borehole Diameter	: 2"
Time Completed	: 09:50	Drilling Firm	: Roberts Env Drilling
Boring Location	: SW Property Corner	Drilling Method	: Direct Push

Depth in Feet	Static Water Level	Graphic	DESCRIPTION	Sample Interval	Recovery in Feet	Moisture	PID Reading (10.6 mV)	Sample Number	Remarks
0			TOPSOIL.						
2			Brown SILTY CLAY, no odor, dry, medium stiff, loose to friable.	0-4'	2.5'	D	0.1	B-01-04	
4			Becomes damp at 4.0' bsl.			P	0.1	B-01-06	
6			Becomes moist, soft, plastic at 6.0' bsl.	4-8'	3.6'	M	0.1	B-01-08	
8			Becomes wet, sticky at 8.0' bsl.			W	0	B-01-10	
10			Brown and gray SILTY CLAY no odor, wet, soft, sticky, plastic.	8-12'	3.2'		0.1	B-01-12	
12							0	B-01-14	
14	▽			12-16'	2.8'	W	**0**	**B-01-16**	**Sample Analyzed (14.0-16.0')**
16							0	B-01-18	
18				16-20'	3.7'	W	0	B-01-20	
20			**Exploration Terminated**						
22									
24									

bsl = Below surface level
Converted to Temporary Monitoring Well TMW-01
Screened interval from 5.0' to 20.0' bsl
Water level measured 15.29' bsl on 9-15-25

LOG OF BORING B-02
(TMW-02)

Residential Lot
2465 Brown Lane
St. Louis, Missouri

Project Number: C-25174

Project Manager	: G.L. Porter	Water Level	: DRY on 9/12/25
Date	: 9/12/25	Total Depth	: 20.0'
Time Started	: 09:12	Borehole Diameter	: 2"
Time Completed	: 09:20	Drilling Firm	: Roberts Env Drilling
Boring Location	: 119.0' East of Property Corner	Drilling Method	: Direct Push

Depth in Feet	Static Water Level	Graphic	DESCRIPTION	Sample Interval	Recovery in Feet	Moisture	PID Reading (10.6 mV)	Sample Number	Remarks
0			TOPSOIL.						
2			Brown SILTY CLAY, no odor, dry, medium stiff, loose to friable.	0-4'	2.5'	D	0	B-02-04	
4			Brown SILTY CLAY with dark brown mottling, no odor, damp to moist.	4-8'	3.6'	P	0.1	B-02-06	
6			Becomes soft, plastic at 6.0' bsl.			M	0.1	B-02-08	
8			Becomes wet and sticky at 8.0' bsl.	8-12'	3.2'	W	0	B-02-10	
10							0.1	B-02-12	
12	▽		Brown SILTY CLAY with gray mottling, no odor, wet, soft, sticky, plastic.	12-16'	2.7'	W	**0.1**	**B-02-14**	**Sample Analyzed (12.0-14.0')**
14							0.1	B-02-16	
16				16-20'	3.7'	W	0.1	B-02-18	
18							0.1	B-02-20	
20			**Exploration Terminated**						
22									
24			bsl = Below surface level Converted to Temporary Monitoring Well TMW-02 Screened interval from 5.0' to 20.0' bsl Water level measured 13.24' bsl on 9-15-25						

LOG OF BORING B-03
(TMW-03)

Residential Lot
2465 Brown Lane
St. Louis, Missouri

Project Number: C-25174

Project Manager	: G.L. Porter	Water Level	: DRY on 9/12/25
Date	: 9/12/25	Total Depth	: 20.0'
Time Started	: 08:23	Borehole Diameter	: 2"
Time Completed	: 08:39	Drilling Firm	: Roberts Env Drilling
Boring Location	: SE Property Corner	Drilling Method	: Direct Push

Depth in Feet	Static Water Level	Graphic	DESCRIPTION	Sample Interval	Recovery in Feet	Moisture	PID Reading (10.6 mV)	Sample Number	Remarks
0			TOPSOIL.						
			Brown SILTY CLAY, no odor, dry, medium stiff, loose to friable.	0-4'	2.0'	D	0.1	B-03-04	
4			Dark brown SILTY CLAY with brown mottling, no odor, damp, medium stiff, friable.	4-8'	3.1'	P	0.1	B-03-06	
6							0.1	B-03-08	
8			Brown SILTY CLAY with gray mottling, no odor, moist, soft, plastic.	8-12'	3.4'	M	0.1	B-03-10	
10	▽						**0.1**	**B-03-12**	**Sample Analyzed (10.0-12.0')**
12			Becomes wet at 12.0' bsl.	12-16'	2.1'	W	0.1	B-03-14	
14							0	B-03-16	
16			Black to gray SILTY CLAY, no odor, wet, soft, plastic.	16-20'	2.9'	W	0.1	B-03-18	
18							0.1	B-03-20	
20			**Exploration Terminated**						
22									
24									

bsl = Below surface level
Converted to Temporary Monitoring Well TMW-03
Screened interval from 5.0' to 20.0' bsl
Water level measured 11.45' bsl on 9-15-25

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

C2 – Well Plugging Record

MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI GEOLOGICAL SURVEY
Temporary Well Registration Report

FOR OFFICE USE ONLY		
REFERENCE NUMBER 11288274	REVENUE NUMBER 092325	
REGISTRATION NUMBER	CHECK NO.	
DATE RECEIVED 09/23/2025	APPROVED BY DNR USERID	APPROVAL DATE 09/23/2025

TYPE	STATUS	COMPLETED	DRILL AREA	TOTAL DEPTH	VARIANCE #
Temporary Well	Plugged	09/15/2025	Area 1		

SITE INFORMATION

SITE NAME	ADDRESS (STREET, CITY, STATE, ZIP)	
	2425-2499 Brown Ln Florissant, MO 63033	
DECIMAL DEGREE COORDINATES	DEGREES MINUTES SECONDS	COUNTY
38.80644, -90.307865	38°48'23.21" -90°18'28.31"	ST LOUIS COUNTY

OWNER INFORMATION

OWNER NAME	ADDRESS (STREET, CITY, STATE, ZIP)
Matt Elmore, Promise Community Homes	1240 Dautel Lane St. Louis, MO 63146

GENERAL INFORMATION

DATE FIRST WELL PLUGGED	DATE LAST WELL PLUGGED
09/15/2025	09/15/2025

BOREHOLE INFORMATION

BOREHOLE SET #1 (Enter All Identical Boreholes)	NUMBER OF BOREHOLES	DEPTH OF BOREHOLES
	3	60.0

BOREHOLE DIAMETER: 2.000

PLUG MATERIAL	GROUT AMOUNT	UOM	TOP	BOTTOM
Bentonite Chips	2	50 lb bags	0.0	20.0

DRILLER INFORMATION

DRILLER BUSINESS	PERMIT #	NAME
NPN ENVIRONMENTAL ENG	002918	G Leston Porter
PRIMARY CONTRACTOR BUSINESS	PERMIT #	NAME
DRILLER APPRENTICE BUSINESS	PERMIT #	NAME

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPENDIX D

Laboratory Reports

D1 – Soil
D2 – Groundwater

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

D1 – Soil

ANALYTICAL REPORT

September 23, 2025

NPN Environmental Engineers Inc.

Sample Delivery Group:	L1898360
Samples Received:	09/16/2025
Project Number:	C-25174
Description:	2465 Brown Lane

Report To:

Mr. Leston Porter
1631 Headland Drive
Saint Louis, MO 63026

Entire Report Reviewed By:

Jeff Carr
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

B-01-16 L1898360-01

Collected by: Leston Porter | Collected date/time: 09/12/25 09:46 | Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2602197	1	09/17/25 09:55	09/17/25 10:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2602233	1	09/12/25 09:46	09/17/25 11:45	ADM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2605763	1	09/22/25 16:05	09/23/25 02:34	DMG	Mt. Juliet, TN

B-02-14 L1898360-02

Collected by: Leston Porter | Collected date/time: 09/12/25 09:12 | Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2602197	1	09/17/25 09:55	09/17/25 10:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2602233	1	09/12/25 09:12	09/17/25 12:09	ADM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2605763	1	09/22/25 16:05	09/23/25 02:55	DMG	Mt. Juliet, TN

B-03-12 L1898360-03

Collected by: Leston Porter | Collected date/time: 09/12/25 08:36 | Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2602197	1	09/17/25 09:55	09/17/25 10:06	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2602233	1	09/12/25 08:36	09/17/25 12:33	ADM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2605763	1	09/22/25 16:05	09/23/25 03:59	DMG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	09/17/2025 10:06	WG2602197

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/MS) Low Fraction	ND		0.629	1	09/17/2025 11:45	WG2602233
tert-Amyl Methyl Ether	ND	J4	0.00126	1	09/17/2025 11:45	WG2602233
Benzene	ND		0.00126	1	09/17/2025 11:45	WG2602233
tert-Butyl alcohol	ND		0.00629	1	09/17/2025 11:45	WG2602233
1,2-Dichloroethane	ND		0.00126	1	09/17/2025 11:45	WG2602233
1,2-Dibromoethane	ND		0.00126	1	09/17/2025 11:45	WG2602233
Di-isopropyl ether	ND		0.00126	1	09/17/2025 11:45	WG2602233
Ethylbenzene	ND		0.00126	1	09/17/2025 11:45	WG2602233
Ethyl tert-butyl ether	ND		0.00126	1	09/17/2025 11:45	WG2602233
Methyl tert-butyl ether	ND		0.00126	1	09/17/2025 11:45	WG2602233
Naphthalene	ND		0.00629	1	09/17/2025 11:45	WG2602233
Toluene	ND		0.00629	1	09/17/2025 11:45	WG2602233
Xylenes, Total	ND		0.00377	1	09/17/2025 11:45	WG2602233
(S) Toluene-d8	*91.6*		*75.0-131*		*09/17/2025 11:45*	WG2602233
(S) 4-Bromofluorobenzene	*100*		*67.0-138*		*09/17/2025 11:45*	WG2602233
(S) 1,2-Dichloroethane-d4	*115*		*70.0-130*		*09/17/2025 11:45*	WG2602233

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
DRO	ND		12.6	1	09/23/2025 02:34	WG2605763
ORO	ND		12.6	1	09/23/2025 02:34	WG2605763
(S) Nitrobenzene-d5	*65.8*		*22.0-150*		*09/23/2025 02:34*	WG2605763
(S) 2-Fluorobiphenyl	*65.3*		*27.0-135*		*09/23/2025 02:34*	WG2605763
(S) p-Terphenyl-d14	*55.6*		*22.0-129*		*09/23/2025 02:34*	WG2605763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.9		1	09/17/2025 10:06	WG2602197

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/MS) Low Fraction	ND		0.626	1	09/17/2025 12:09	WG2602233
tert-Amyl Methyl Ether	ND	J4	0.00125	1	09/17/2025 12:09	WG2602233
Benzene	ND		0.00125	1	09/17/2025 12:09	WG2602233
tert-Butyl alcohol	ND		0.00626	1	09/17/2025 12:09	WG2602233
1,2-Dichloroethane	ND		0.00125	1	09/17/2025 12:09	WG2602233
1,2-Dibromoethane	ND		0.00125	1	09/17/2025 12:09	WG2602233
Di-isopropyl ether	ND		0.00125	1	09/17/2025 12:09	WG2602233
Ethylbenzene	ND		0.00125	1	09/17/2025 12:09	WG2602233
Ethyl tert-butyl ether	ND		0.00125	1	09/17/2025 12:09	WG2602233
Methyl tert-butyl ether	ND		0.00125	1	09/17/2025 12:09	WG2602233
Naphthalene	ND		0.00626	1	09/17/2025 12:09	WG2602233
Toluene	0.00679		0.00626	1	09/17/2025 12:09	WG2602233
Xylenes, Total	ND		0.00375	1	09/17/2025 12:09	WG2602233
(S) Toluene-d8	*92.2*		*75.0-131*		*09/17/2025 12:09*	WG2602233
(S) 4-Bromofluorobenzene	*101*		*67.0-138*		*09/17/2025 12:09*	WG2602233
(S) 1,2-Dichloroethane-d4	*116*		*70.0-130*		*09/17/2025 12:09*	WG2602233

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
DRO	ND		12.5	1	09/23/2025 02:55	WG2605763
ORO	ND		12.5	1	09/23/2025 02:55	WG2605763
(S) Nitrobenzene-d5	*71.7*		*22.0-150*		*09/23/2025 02:55*	WG2605763
(S) 2-Fluorobiphenyl	*69.8*		*27.0-135*		*09/23/2025 02:55*	WG2605763
(S) p-Terphenyl-d14	*68.9*		*22.0-129*		*09/23/2025 02:55*	WG2605763

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	09/17/2025 10:06	WG2602197

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
TPH (GC/MS) Low Fraction	ND		0.638	1	09/17/2025 12:33	WG2602233
tert-Amyl Methyl Ether	ND	J4	0.00128	1	09/17/2025 12:33	WG2602233
Benzene	ND		0.00128	1	09/17/2025 12:33	WG2602233
tert-Butyl alcohol	ND		0.00638	1	09/17/2025 12:33	WG2602233
1,2-Dichloroethane	ND		0.00128	1	09/17/2025 12:33	WG2602233
1,2-Dibromoethane	ND		0.00128	1	09/17/2025 12:33	WG2602233
Di-isopropyl ether	ND		0.00128	1	09/17/2025 12:33	WG2602233
Ethylbenzene	ND		0.00128	1	09/17/2025 12:33	WG2602233
Ethyl tert-butyl ether	ND		0.00128	1	09/17/2025 12:33	WG2602233
Methyl tert-butyl ether	ND		0.00128	1	09/17/2025 12:33	WG2602233
Naphthalene	ND		0.00638	1	09/17/2025 12:33	WG2602233
Toluene	0.00866		0.00638	1	09/17/2025 12:33	WG2602233
Xylenes, Total	ND		0.00383	1	09/17/2025 12:33	WG2602233
(S) Toluene-d8	*91.8*		*75.0-131*		*09/17/2025 12:33*	WG2602233
(S) 4-Bromofluorobenzene	*102*		*67.0-138*		*09/17/2025 12:33*	WG2602233
(S) 1,2-Dichloroethane-d4	*118*		*70.0-130*		*09/17/2025 12:33*	WG2602233

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
DRO	ND		12.8	1	09/23/2025 03:59	WG2605763
ORO	ND		12.8	1	09/23/2025 03:59	WG2605763
(S) Nitrobenzene-d5	*79.8*		*22.0-150*		*09/23/2025 03:59*	WG2605763
(S) 2-Fluorobiphenyl	*80.8*		*27.0-135*		*09/23/2025 03:59*	WG2605763
(S) p-Terphenyl-d14	*82.3*		*22.0-129*		*09/23/2025 03:59*	WG2605763

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4274983-1 09/17/25 10:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1898433-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1898433-01 09/17/25 10:06 • (DUP) R4274983-3 09/17/25 10:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	23.5	23.6	1	0.306		10

Laboratory Control Sample (LCS)

(LCS) R4274983-2 09/17/25 10:06

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4274663-4 09/17/25 10:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/MS) Low Fraction	U		0.207	0.500
tert-Amyl Methyl Ether	U		0.000400	0.00100
Benzene	U		0.000307	0.00100
tert-Butyl alcohol	U		0.00387	0.00500
1,2-Dichloroethane	U		0.000241	0.00100
1,2-Dibromoethane	U		0.000421	0.00100
Di-isopropyl ether	U		0.000418	0.00100
Ethylbenzene	U		0.000232	0.00100
Ethyl tert-butyl ether	U		0.000250	0.00100
Methyl tert-butyl ether	U		0.000268	0.00100
Naphthalene	U		0.00292	0.00500
Toluene	U		0.00139	0.00500
Xylenes, Total	U		0.000793	0.00300
(S) Toluene-d8	*93.3*			*75.0-131*
(S) 4-Bromofluorobenzene	*101*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4274663-1 09/17/25 07:46 • (LCSD) R4274663-2 09/17/25 08:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
tert-Amyl Methyl Ether	0.0250	0.0340	0.0359	136	144	66.0-135	J4	J4	5.44	20
Benzene	0.0250	0.0271	0.0279	108	112	70.0-123			2.91	20
tert-Butyl alcohol	0.125	0.111	0.119	88.8	95.2	15.0-160			6.96	33
1,2-Dichloroethane	0.0250	0.0264	0.0277	106	111	65.0-131			4.81	20
1,2-Dibromoethane	0.0250	0.0217	0.0226	86.8	90.4	74.0-128			4.06	20
Di-isopropyl ether	0.0250	0.0283	0.0296	113	118	60.0-136			4.49	20
Ethylbenzene	0.0250	0.0243	0.0249	97.2	99.6	74.0-126			2.44	20
Ethyl tert-butyl ether	0.0250	0.0308	0.0324	123	130	68.0-140			5.06	20
Methyl tert-butyl ether	0.0250	0.0291	0.0305	116	122	66.0-132			4.70	20
Naphthalene	0.0250	0.0297	0.0311	119	124	59.0-130			4.61	20
Toluene	0.0250	0.0232	0.0242	92.8	96.8	75.0-121			4.22	20
Xylenes, Total	0.0750	0.0735	0.0767	98.0	102	72.0-127			4.26	20
(S) Toluene-d8				*92.7*	*94.4*	*75.0-131*				
(S) 4-Bromofluorobenzene				*101*	*103*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*107*	*107*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R4274663-3 09/17/25 09:44

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	3.57	71.4	52.0-154	
(S) Toluene-d8			*90.2*	*75.0-131*	
(S) 4-Bromofluorobenzene			*104*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R4277080-1 09/23/25 01:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
DRO	U		3.77	10.0
ORO	U		3.77	10.0
(S) Nitrobenzene-d5	*84.8*			*22.0-150*
(S) 2-Fluorobiphenyl	*80.8*			*27.0-135*
(S) p-Terphenyl-d14	*85.5*			*22.0-129*

Laboratory Control Sample (LCS)

(LCS) R4277080-2 09/23/25 01:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
DRO	167	97.7	58.5	33.0-123	
(S) Nitrobenzene-d5			*70.9*	*22.0-150*	
(S) 2-Fluorobiphenyl			*63.8*	*27.0-135*	
(S) p-Terphenyl-d14			*68.1*	*22.0-129*	

L1898360-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1898360-02 09/23/25 02:55 • (MS) R4277080-5 09/23/25 03:16 • (MSD) R4277080-6 09/23/25 03:38

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
DRO	198	ND	126	98.7	63.9	50.3	1	12.0-140			24.6	26
(S) Nitrobenzene-d5					*86.7*	*67.0*		*22.0-150*				
(S) 2-Fluorobiphenyl					*73.0*	*56.5*		*27.0-135*				
(S) p-Terphenyl-d14					*82.5*	*61.6*		*22.0-129*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

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Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
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Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J4	The associated batch QC was outside the established quality control range for accuracy.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

NPN Environmental
1631 Headland Drive
St. Louis, MO 63026
PH 636/343-1300
FX 636/343-8192

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L[illegible]0983600

A220

Acctnum: NPNSLMO
Template:
Prelogin:
PM:
PB:
Shipped Via:

Report to: Leston Porter | **Email To: glp@npnenv.com**

Project: 2465 Brown Lane | City/State MO Collected: | Please Circle: PT MT CT ET

Cell: 314-520-0552 | **Client Project # C-25174** | **Lab Project #**

Collected by (print): Leston Porter
Collected by (signature): S Leston Porter
Immediately Packed on Ice N ___ Y X

Site/Facility ID #
P.O. # C-25174
Quote #

Rush? (Lab MUST Be Notified) ___
Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: 4 Day TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC, EDB, EDC, OXY, GRO 8260 = 2-40ml TSP 1-MeOH	DRO/ORO 8270, MO 6 Metals, TS = 9oz jar	Remarks	Sample # (lab only)
B-01-16	Grab	SS	14-16'	9-12-25	09:46	4	X	X		-01
B-02-14	Grab	SS	12-14'	9-12-25	09:17	4	X	X		-02
B-03-12	Grab	SS	10-12'	9-12-25	08:36	4	X	X		-03

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____
Tracking # 731946000294

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
S Leston Porter	9-15-25	1435	Steve Colter #560		
Relinquished by : (Signature) S Colter #560	Date:	Time:	Received by: (Signature)	Temp: ED4 °C 2.8 0.1-2.7 Bottles Received: 12	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Deangh	Date: 9.16.25 Time: 0930	Hold: Condition: NCF / OK

ANALYTICAL REPORT

September 25, 2025

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

NPN Environmental Engineers Inc.

Sample Delivery Group:	L1900967
Samples Received:	09/16/2025
Project Number:	C-25174
Description:	2465 Brown Lane

Report To:

Mr. Leston Porter
1631 Headland Drive
Saint Louis, MO 63026

Entire Report Reviewed By:

Jeff Carr
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

B-01-16 L1900967-01

Collected by: Leston Porter
Collected date/time: 09/12/25 09:46
Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2602197	1	09/17/25 09:55	09/17/25 10:06	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2607212	1	09/24/25 13:42	09/24/25 15:24	NMM	Mt. Juliet, TN

B-02-14 L1900967-02

Collected by: Leston Porter
Collected date/time: 09/12/25 09:12
Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2602197	1	09/17/25 09:55	09/17/25 10:06	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2607212	1	09/24/25 13:42	09/24/25 15:33	NMM	Mt. Juliet, TN

B-03-12 L1900967-03

Collected by: Leston Porter
Collected date/time: 09/12/25 08:36
Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG2602197	1	09/17/25 09:55	09/17/25 10:06	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG2607212	1	09/24/25 13:42	09/24/25 15:34	NMM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	09/17/2025 10:06	WG2602197

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	6.41		2.52	1	09/24/2025 15:24	WG2607212
Barium	71.0		0.629	1	09/24/2025 15:24	WG2607212
Cadmium	ND		0.629	1	09/24/2025 15:24	WG2607212
Chromium	20.2	O1	1.26	1	09/24/2025 15:24	WG2607212
Lead	10.0		0.629	1	09/24/2025 15:24	WG2607212
Selenium	ND		2.52	1	09/24/2025 15:24	WG2607212

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.9		1	09/17/2025 10:06	WG2602197

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	ND		2.50	1	09/24/2025 15:33	WG2607212
Barium	69.3		0.626	1	09/24/2025 15:33	WG2607212
Cadmium	ND		0.626	1	09/24/2025 15:33	WG2607212
Chromium	14.5		1.25	1	09/24/2025 15:33	WG2607212
Lead	9.31		0.626	1	09/24/2025 15:33	WG2607212
Selenium	ND		2.50	1	09/24/2025 15:33	WG2607212

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.4		1	09/17/2025 10:06	WG2602197

Metals (ICP) by Method 6010D

Analyte	Result (dry)	Qualifier	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg		date / time	
Arsenic	5.98		2.55	1	09/24/2025 15:34	WG2607212
Barium	128		0.638	1	09/24/2025 15:34	WG2607212
Cadmium	ND		0.638	1	09/24/2025 15:34	WG2607212
Chromium	20.4		1.28	1	09/24/2025 15:34	WG2607212
Lead	14.4		0.638	1	09/24/2025 15:34	WG2607212
Selenium	ND		2.55	1	09/24/2025 15:34	WG2607212

Method Blank (MB)

(MB) R4274983-1 09/17/25 10:06

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1898433-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1898433-01 09/17/25 10:06 • (DUP) R4274983-3 09/17/25 10:06

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	23.5	23.6	1	0.306		10

Laboratory Control Sample (LCS)

(LCS) R4274983-2 09/17/25 10:06

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	90.0-110	

Method Blank (MB)

(MB) R4278113-1 09/24/25 15:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.837	2.00
Barium	U		0.0850	0.500
Cadmium	U		0.0653	0.500
Chromium	U		0.214	1.00
Lead	U		0.326	0.500
Selenium	U		1.07	2.00

Laboratory Control Sample (LCS)

(LCS) R4278113-2 09/24/25 15:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	97.8	97.8	80.0-120	
Barium	100	99.9	99.9	80.0-120	
Cadmium	100	92.9	92.9	80.0-120	
Chromium	100	102	102	80.0-120	
Lead	100	93.7	93.7	80.0-120	
Selenium	100	94.2	94.2	80.0-120	

L1900967-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1900967-01 09/24/25 15:24 • (MS) R4278113-5 09/24/25 15:29 • (MSD) R4278113-6 09/24/25 15:31

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	126	6.41	131	128	98.9	96.5	1	75.0-125			2.36	20
Barium	126	71.0	211	197	111	99.9	1	75.0-125			6.98	20
Cadmium	126	ND	125	121	99.2	95.9	1	75.0-125			3.38	20
Chromium	126	20.2	156	150	108	103	1	75.0-125			3.99	20
Lead	126	10.0	136	131	100	96.4	1	75.0-125			3.77	20
Selenium	126	ND	126	121	100	96.3	1	75.0-125			3.80	20

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Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
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J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

NPN Environmental
1631 Headland Drive
St. Louis, MO 63026
PH 636/343-1300
FX 636/343-8192

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1900967

A220

Acctnum: NPNSLMO

Template:

Prelogin:

PM: L1900967

PB:

Shipped Via:

NV 9/24/25

Report to: Leston Porter

Email To: glp@npnenv.com

Project: 2465 Brown Lane

City/State Collected: MO

Please Circle: PT MT CT ET

Cell: 314-520-0552

Client Project # C-25174

Lab Project #

Collected by (print): Leston Porter

Site/Facility ID #

P.O. # C-25174

Collected by (signature): S Leston Porter

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified) ___
Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: 4 Day TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC, EDB, EDC, OXY, GRO 8260 = 2-40ml TSP 1-MeOH	DRO/ORO 8270, MO 6 Metals, TS = 9oz jar	Remarks	Sample # (lab only)
B-01-16	Grab	SS	14-16'	9-12-25	09:46	4	X	X		-01
B-02-14	Grab	SS	12-14'	9-12-25	09:17	4	X	X		-02
B-03-12	Grab	SS	10-12'	9-12-25	08:36	4	X	X		-03

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__UPS __FedEx __Courier _____

Tracking # 735946000294

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
S Leston Porter	9-15-25	1435	Steve Colter #560		
Relinquished by : (Signature) S Colter #560	Date:	Time:	Received by: (Signature)	Temp 2.8 0.1-27 °C Bottles Received: 12	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Demarh	Date: 9.16.25 Time: 0930	Hold: Condition: NCF / OK

NPNSLMO L1898360-01,-02,-03 relog for metals

R0/R1

Please relog NPNSLMO samples L1898360-01, -02 and -03 for ASICP, BAICP, CDICP, CRICP, PBICP and SEICP. TS results can be transferred.

R1 Due tomorrow.

Thanks!

Time estimate: oh **Time spent:** oh

Members

JC Jeff Carr (responsible)

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

D2 – Groundwater

ANALYTICAL REPORT

September 26, 2025

NPN Environmental Engineers Inc.

Sample Delivery Group:	L1898357
Samples Received:	09/16/2025
Project Number:	C-25174
Description:	2465 Brown Lane

Report To:

Mr. Leston Porter
1631 Headland Drive
Saint Louis, MO 63026

Entire Report Reviewed By:

Jeff Carr
Project Manager

Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 mydata.pacelabs.com

TABLE OF CONTENTS

SAMPLE SUMMARY

TMW-01-GW L1898357-01

Collected by: Leston Porter | Collected date/time: 09/15/25 08:40 | Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2602439	1	09/18/25 08:57	09/18/25 20:38	NMM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2602630	1	09/17/25 15:07	09/17/25 15:07	DYW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2603230	1	09/22/25 07:30	09/22/25 17:50	DMG	Mt. Juliet, TN

TMW-02-GW L1898357-02

Collected by: Leston Porter | Collected date/time: 09/15/25 09:20 | Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2602439	1	09/18/25 08:57	09/18/25 20:40	NMM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2602630	1	09/17/25 15:26	09/17/25 15:26	DYW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2603230	1	09/22/25 07:30	09/22/25 18:11	DMG	Mt. Juliet, TN

TMW-03-GW L1898357-03

Collected by: Leston Porter | Collected date/time: 09/15/25 09:50 | Received date/time: 09/16/25 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010D	WG2602439	1	09/18/25 08:57	09/18/25 20:42	NMM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG2602630	1	09/17/25 15:45	09/17/25 15:45	DYW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E	WG2603230	1	09/22/25 07:30	09/22/25 17:04	MGP	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jeff Carr
Project Manager

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	09/18/2025 20:38	WG2602439
Barium	0.220		0.00500	1	09/18/2025 20:38	WG2602439
Cadmium	ND		0.00200	1	09/18/2025 20:38	WG2602439
Chromium	ND		0.0100	1	09/18/2025 20:38	WG2602439
Lead	ND		0.00600	1	09/18/2025 20:38	WG2602439
Selenium	ND		0.0100	1	09/18/2025 20:38	WG2602439

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	ND	C3	0.500	1	09/17/2025 15:07	WG2602630
tert-Amyl Methyl Ether	ND		0.00100	1	09/17/2025 15:07	WG2602630
Benzene	ND		0.00100	1	09/17/2025 15:07	WG2602630
tert-Butyl alcohol	ND		0.0200	1	09/17/2025 15:07	WG2602630
1,2-Dichloroethane	ND		0.00100	1	09/17/2025 15:07	WG2602630
1,2-Dibromoethane	ND		0.00100	1	09/17/2025 15:07	WG2602630
Di-isopropyl ether	ND		0.00100	1	09/17/2025 15:07	WG2602630
Ethylbenzene	ND		0.00100	1	09/17/2025 15:07	WG2602630
Ethyl tert-butyl ether	ND		0.00100	1	09/17/2025 15:07	WG2602630
Methyl tert-butyl ether	ND		0.00100	1	09/17/2025 15:07	WG2602630
Naphthalene	ND		0.00500	1	09/17/2025 15:07	WG2602630
Toluene	ND		0.00100	1	09/17/2025 15:07	WG2602630
Xylenes, Total	ND		0.00300	1	09/17/2025 15:07	WG2602630
(S) Toluene-d8	*94.0*		*80.0-120*		*09/17/2025 15:07*	WG2602630
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*09/17/2025 15:07*	WG2602630
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*09/17/2025 15:07*	WG2602630

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
DRO	ND		1.00	1	09/22/2025 17:50	WG2603230
ORO	ND		1.00	1	09/22/2025 17:50	WG2603230
(S) Nitrobenzene-d5	*122*		*54.0-159*		*09/22/2025 17:50*	WG2603230
(S) 2-Fluorobiphenyl	*118*		*65.0-127*		*09/22/2025 17:50*	WG2603230
(S) p-Terphenyl-d14	*134*	J1	*50.0-120*		*09/22/2025 17:50*	WG2603230

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.0100	1	09/18/2025 20:40	WG2602439
Barium	0.180		0.00500	1	09/18/2025 20:40	WG2602439
Cadmium	ND		0.00200	1	09/18/2025 20:40	WG2602439
Chromium	ND		0.0100	1	09/18/2025 20:40	WG2602439
Lead	ND		0.00600	1	09/18/2025 20:40	WG2602439
Selenium	ND		0.0100	1	09/18/2025 20:40	WG2602439

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	ND	C3	0.500	1	09/17/2025 15:26	WG2602630
tert-Amyl Methyl Ether	ND		0.00100	1	09/17/2025 15:26	WG2602630
Benzene	ND		0.00100	1	09/17/2025 15:26	WG2602630
tert-Butyl alcohol	ND		0.0200	1	09/17/2025 15:26	WG2602630
1,2-Dichloroethane	ND		0.00100	1	09/17/2025 15:26	WG2602630
1,2-Dibromoethane	ND		0.00100	1	09/17/2025 15:26	WG2602630
Di-isopropyl ether	ND		0.00100	1	09/17/2025 15:26	WG2602630
Ethylbenzene	ND		0.00100	1	09/17/2025 15:26	WG2602630
Ethyl tert-butyl ether	ND		0.00100	1	09/17/2025 15:26	WG2602630
Methyl tert-butyl ether	ND		0.00100	1	09/17/2025 15:26	WG2602630
Naphthalene	ND		0.00500	1	09/17/2025 15:26	WG2602630
Toluene	ND		0.00100	1	09/17/2025 15:26	WG2602630
Xylenes, Total	ND		0.00300	1	09/17/2025 15:26	WG2602630
(S) Toluene-d8	*97.8*		*80.0-120*		*09/17/2025 15:26*	WG2602630
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*09/17/2025 15:26*	WG2602630
(S) 1,2-Dichloroethane-d4	*111*		*70.0-130*		*09/17/2025 15:26*	WG2602630

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
DRO	ND		1.00	1	09/22/2025 18:11	WG2603230
ORO	ND		1.00	1	09/22/2025 18:11	WG2603230
(S) Nitrobenzene-d5	*122*		*54.0-159*		*09/22/2025 18:11*	WG2603230
(S) 2-Fluorobiphenyl	*125*		*65.0-127*		*09/22/2025 18:11*	WG2603230
(S) p-Terphenyl-d14	*141*	J1	*50.0-120*		*09/22/2025 18:11*	WG2603230

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0124		0.0100	1	09/18/2025 20:42	WG2602439
Barium	0.265		0.00500	1	09/18/2025 20:42	WG2602439
Cadmium	ND		0.00200	1	09/18/2025 20:42	WG2602439
Chromium	0.0163		0.0100	1	09/18/2025 20:42	WG2602439
Lead	0.0202		0.00600	1	09/18/2025 20:42	WG2602439
Selenium	ND		0.0100	1	09/18/2025 20:42	WG2602439

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	ND	C3	0.500	1	09/17/2025 15:45	WG2602630
tert-Amyl Methyl Ether	ND		0.00100	1	09/17/2025 15:45	WG2602630
Benzene	ND		0.00100	1	09/17/2025 15:45	WG2602630
tert-Butyl alcohol	ND		0.0200	1	09/17/2025 15:45	WG2602630
1,2-Dichloroethane	ND		0.00100	1	09/17/2025 15:45	WG2602630
1,2-Dibromoethane	ND		0.00100	1	09/17/2025 15:45	WG2602630
Di-isopropyl ether	ND		0.00100	1	09/17/2025 15:45	WG2602630
Ethylbenzene	ND		0.00100	1	09/17/2025 15:45	WG2602630
Ethyl tert-butyl ether	ND		0.00100	1	09/17/2025 15:45	WG2602630
Methyl tert-butyl ether	ND		0.00100	1	09/17/2025 15:45	WG2602630
Naphthalene	ND		0.00500	1	09/17/2025 15:45	WG2602630
Toluene	ND		0.00100	1	09/17/2025 15:45	WG2602630
Xylenes, Total	ND		0.00300	1	09/17/2025 15:45	WG2602630
(S) Toluene-d8	*98.3*		*80.0-120*		*09/17/2025 15:45*	WG2602630
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*09/17/2025 15:45*	WG2602630
(S) 1,2-Dichloroethane-d4	*111*		*70.0-130*		*09/17/2025 15:45*	WG2602630

Semi Volatile Organic Compounds (GC/MS) by Method 8270E

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
DRO	ND		1.00	1	09/22/2025 17:04	WG2603230
ORO	ND		1.00	1	09/22/2025 17:04	WG2603230
(S) Nitrobenzene-d5	*84.0*		*54.0-159*		*09/22/2025 17:04*	WG2603230
(S) 2-Fluorobiphenyl	*114*		*65.0-127*		*09/22/2025 17:04*	WG2603230
(S) p-Terphenyl-d14	*125*	J1	*50.0-120*		*09/22/2025 17:04*	WG2603230

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R4275606-1 09/18/25 20:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00783	0.0100
Barium	U		0.000773	0.00500
Cadmium	U		0.000538	0.00200
Chromium	U		0.00151	0.0100
Lead	U		0.00243	0.00600
Selenium	U		0.00616	0.0100

Laboratory Control Sample (LCS)

(LCS) R4275606-2 09/18/25 20:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1.00	0.980	98.0	80.0-120	
Barium	1.00	1.02	102	80.0-120	
Cadmium	1.00	0.962	96.2	80.0-120	
Chromium	1.00	0.955	95.5	80.0-120	
Lead	1.00	0.968	96.8	80.0-120	
Selenium	1.00	0.968	96.8	80.0-120	

L1898498-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1898498-04 09/18/25 20:31 • (MS) R4275606-4 09/18/25 20:35 • (MSD) R4275606-5 09/18/25 20:37

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	ND	0.995	0.984	99.5	98.4	1	75.0-125			1.02	20
Barium	1.00	0.158	1.18	1.17	102	101	1	75.0-125			1.11	20
Cadmium	1.00	ND	0.973	0.962	97.3	96.2	1	75.0-125			1.08	20
Chromium	1.00	ND	0.985	0.976	98.3	97.4	1	75.0-125			0.916	20
Lead	1.00	ND	0.975	0.965	97.5	96.5	1	75.0-125			1.01	20
Selenium	1.00	ND	0.998	0.986	99.8	98.6	1	75.0-125			1.20	20

Method Blank (MB)

(MB) R4275269-5 09/17/25 11:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
tert-Amyl Methyl Ether	U		0.000337	0.00100
Benzene	U		0.000320	0.00100
tert-Butyl alcohol	U		0.00496	0.0200
1,2-Dichloroethane	U		0.000395	0.00100
1,2-Dibromoethane	U		0.000341	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000234	0.00100
Ethyl tert-butyl ether	U		0.000474	0.00100
Methyl tert-butyl ether	U		0.000357	0.00100
Naphthalene	U		0.00264	0.00500
Toluene	U		0.000274	0.00100
Xylenes, Total	U		0.000319	0.00300
(S) Toluene-d8	*96.2*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4275269-1 09/17/25 09:17 • (LCSD) R4275269-2 09/17/25 09:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
tert-Amyl Methyl Ether	0.0250	0.0243	0.0246	97.2	98.4	66.0-125			1.23	20
Benzene	0.0250	0.0246	0.0244	98.4	97.6	70.0-123			0.816	20
tert-Butyl alcohol	0.125	0.170	0.200	136	160	27.0-160			16.2	30
1,2-Dichloroethane	0.0250	0.0243	0.0245	97.2	98.0	70.0-128			0.820	20
1,2-Dibromoethane	0.0250	0.0244	0.0249	97.6	99.6	80.0-122			2.03	20
Di-isopropyl ether	0.0250	0.0292	0.0298	117	119	58.0-138			2.03	20
Ethylbenzene	0.0250	0.0226	0.0225	90.4	90.0	79.0-123			0.443	20
Ethyl tert-butyl ether	0.0250	0.0255	0.0257	102	103	63.0-138			0.781	20
Methyl tert-butyl ether	0.0250	0.0248	0.0247	99.2	98.8	68.0-125			0.404	20
Naphthalene	0.0250	0.0255	0.0271	102	108	54.0-135			6.08	20
Toluene	0.0250	0.0225	0.0226	90.0	90.4	79.0-120			0.443	20
Xylenes, Total	0.0750	0.0668	0.0674	89.1	89.9	79.0-123			0.894	20
(S) Toluene-d8				*95.6*	*95.4*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*99.5*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*120*	*107*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R4275269-3 09/17/25 09:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.94	98.8	66.0-132	
(S) Toluene-d8			*93.0*	*80.0-120*	
(S) 4-Bromofluorobenzene			*99.0*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

L1898634-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1898634-01 09/17/25 17:21 • (MS) R4275269-6 09/17/25 20:51 • (MSD) R4275269-7 09/17/25 21:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
tert-Amyl Methyl Ether	0.0250	ND	0.0306	0.0276	122	110	1	10.0-160			10.3	37
Benzene	0.0250	ND	0.0318	0.0284	127	114	1	17.0-158			11.3	27
tert-Butyl alcohol	0.125	0.0258	0.256	0.274	184	199	1	50.0-150	J5	J5	6.79	20
1,2-Dichloroethane	0.0250	ND	0.0312	0.0276	125	110	1	29.0-151			12.2	27
1,2-Dibromoethane	0.0250	ND	0.0316	0.0276	126	110	1	34.0-147			13.5	27
Di-isopropyl ether	0.0250	ND	0.0379	0.0339	152	136	1	21.0-160			11.1	28
Ethylbenzene	0.0250	ND	0.0296	0.0262	118	105	1	30.0-155			12.2	27
Ethyl tert-butyl ether	0.0250	ND	0.0330	0.0298	132	119	1	10.0-160			10.2	37
Methyl tert-butyl ether	0.0250	0.00133	0.0328	0.0296	126	113	1	28.0-150			10.3	29
Naphthalene	0.0250	ND	0.0326	0.0290	130	116	1	12.0-156			11.7	35
Toluene	0.0250	ND	0.0295	0.0257	118	103	1	26.0-154			13.8	28
Xylenes, Total	0.0750	ND	0.0891	0.0793	119	106	1	29.0-154			11.6	28
(S) Toluene-d8					*95.4*	*92.8*		*80.0-120*				
(S) 4-Bromofluorobenzene					*99.6*	*102*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*107*	*106*		*70.0-130*				

Method Blank (MB)

(MB) R4277074-5 09/22/25 16:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
DRO	U		0.406	1.00
ORO	U		0.406	1.00
(S) Nitrobenzene-d5	*123*			*54.0-159*
(S) 2-Fluorobiphenyl	*124*			*65.0-127*
(S) p-Terphenyl-d14	*140*	J1		*50.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4277074-1 09/22/25 15:21 • (LCSD) R4277074-2 09/22/25 15:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
DRO	2.00	1.65	1.97	82.5	98.5	31.0-140			17.7	20
(S) Nitrobenzene-d5				*127*	*135*	*54.0-159*				
(S) 2-Fluorobiphenyl				*118*	*107*	*65.0-127*				
(S) p-Terphenyl-d14				*136*	*134*	*50.0-120*	J1	J1		

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
U (Radiochemistry)	Result + Error < MDA.
J (Radiochemistry)	Result < MDA; Result + Error > MDA.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

NPN Environmental
1631 Headland Drive
St. Louis, MO 63026
PH 636/343-1300
FX 636/343-8192

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L898857

A219

Acctnum: NPNSLMO
Template:
Prelogin:
PM:
PB:
Shipped Via:

Report to: Leston Porter | **Email To: glp@npnenv.com**

Project: 2465 Brown Lane | City/State MO Collected: | Please Circle: PT MT CT ET

Phone: D ~~(314) 692 5597~~ | Client Project # C-25174 | Lab Project #

Collected by (print): Leston Porter

Collected by (signature): S Leston Porter

Immediately Packed on Ice N ___ Y X

Site/Facility ID #

P.O. # C-25174

Quote #

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: Four Day TAT

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC, EDB, EDC, OXY, GRO 8260 = 2-40ml TSP	DRO/ORO 8270 = 2-40ml WT	MO 6 Metals = 250ml HNO3	Remarks	Sample # (lab only)
TMW-01-GW	Grab	GW	15.29'	9-15-25	08:40	5	X	X	X		-01
TMW-02-GW	Grab	GW	13.24'	9-15-25	09:20	5	X	X	X		-02
TMW-03-GW	Grab	GW	11.45'	9-15-25	09:50	5	X	X	X		-03

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 773946000294

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / (No) HCL / MeoH TBR
S Leston Porter	9-15-25	14:35	Stw Colt 560	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: ED/19°C 2.80.1-27 Bottles Received: 15
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Dayarh	Date: 9.16.25 Time: 0930

If p... Time

PH – 10BDH07251
TRC – 5090A93

Hold:

Condition: NCF / (OK)

LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

APPENDIX E

Photographic Log

Photo No. 1	Date: 09-15-25
Viewing Angle: East	
Description: Boring B-01 location marked with cone	

Photo No. 2	Date: 09-15-25
Viewing Angle: West	
Description: Boring B-01 location marked with cone	

Photo No. 3	Date: 09-15-25
Viewing Angle: East	
Description: Boring B-02 location marked by spray paint with temporary well installed	

Photo No. 4	Date: 09-15-25
Viewing Angle: West	
Description: Boring B-02 location marked by spray paint with temporary well installed	

Photo No. 5	Date: 09-15-25
Viewing Angle: North	
Description: Boring B-03 location marked with cone	

Photo No. 6	Date: 09-15-25
Viewing Angle: East	
Description: Boring B-03 location marked with cone	

Photo No. 7	Date: 09-15-25
Viewing Angle: N/A	
Description: Boring B-01 plugged with bentonite chips after sampling	

Photo No. 8	Date: 09-15-25
Viewing Angle: N/A	
Description: Boring B-03 location marked with cone