



COMMONWEALTH of VIRGINIA

DEPARTMENT OF HEALTH

OFFICE OF DRINKING WATER

Richmond Field Office

Karen Shelton, MD
State Health Commissioner

Madison Building
109 Governor St., 6th Floor
Richmond, VA 23219
Phone: 804-864-7409
Fax: 804-864-7520

SUBJECT: Louisa County
Waterworks: Lake Anna Technology
Campus
PWSID No: 2109646

December 12, 2025

Bobby Rose
7828 Kentucky Springs Road
Mineral, Virginia 23177
brosejr@amazon.com

Dear Bobby Rose:

Enclosed please find Waterworks Operation Permit No. 2109646T with Operation Permit Conditions dated December 12, 2025, issued by the Commonwealth of Virginia Department of Health, Office of Drinking Water (ODW). This permit is your authorization from the State Health Commissioner to operate the subject waterworks located in Louisa County in accordance with the *Waterworks Regulations*. This permit is not transferable. This permit does not suspend, minimize, or otherwise alter this owner's obligation to comply with applicable federal, state, or local laws and regulations or permits.

You will note that the permit indicates that this waterworks has a permitted capacity of 25,200 gpd. This limit is based on the maximum capacity of the system and shall not be exceeded.

Temporary Permit Requirements are included for this waterworks. These include completion of construction of permanent potable water system facilities per the plans and specifications approved by the issuance of Construction Permit No. 92365 and notification to this office when the waterworks exceeds 24 full-time employees reporting to the water system that will be regularly served by the waterworks for 26 or more weeks per year.

Bobby Rose
December 12, 2025
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Per 12VAC5-590-115 of the *Waterworks Regulations*, if you object to ODW's action, you have the right to an appeal and may send a written request for an administrative proceeding. Your request must be received no later than 30 days from the date you received this letter or the date it was mailed to you, whichever occurred first. Please use the attached form for this purpose and send it to this office.

We look forward to your cooperation in the maintenance and operation of this waterworks.

Sincerely,

A handwritten signature in black ink, appearing to read 'JR' or 'James Reynolds', written over a horizontal line.

James Reynolds, PE
Field Director

cc: Louisa County Health Department
Louisa County Administrator
Louisa County Building Official

OBJECTION AND REQUEST FOR AN ADMINISTRATIVE PROCEEDING *(Include for
permits/amendments not requested by the owner)*

This is to advise Virginia Department of Health that I, _____,
object to the operation permit (amendment) proposed by Virginia Department of Health dated _____
of Waterworks Operation Permit No. _____ for _____
located in _____
and request an administrative proceeding in accordance with 12VAC5-590-115 of the *Waterworks
Regulations*.

My specific objection(s) to the proposed operation permit (amendment) are as follows:

(Name)

(Date)

(Title)



Virginia Department of Health
Office of Drinking Water

Temporary Waterworks Operation Permit

Amazon Data Services, Inc. is hereby granted permission to operate the Lake Anna Technology Campus waterworks, an unclassified, transient noncommunity waterworks located in Louisa County, subject to the attached Temporary Permit Requirements to protect public health and demonstrate compliance with Title 32.1 of the *Code of Virginia* and of the *Virginia Waterworks Regulations, 12VAC5-590-10 et seq.* The waterworks has a capacity of 25,200 gpd. This temporary permit is issued with the understanding that this owner shall operate the waterworks in accordance with Part II of the *Virginia Waterworks Regulations* titled "Operation Regulations for Waterworks." This temporary permit does not suspend, minimize, or otherwise alter this owner's obligation to comply with applicable federal, state, or local laws and regulations or permits. This temporary permit shall expire on December 12, 2026 or may be revoked at any time upon written notice of revocation by the State Health Commissioner if it is determined that Amazon Data Services, Inc. has failed to comply with any of the attached Temporary Permit Requirements.

Attachments: Operation Permit Conditions (X), Variances (), Exemptions (), or Temporary Permit Requirements (X)

PERMIT NO.: 2109646T

EFFECTIVE DATE: December 12, 2025

EXPIRATION DATE: December 12, 2026

APPROVED

A handwritten signature in black ink, appearing to read "James Reynolds".

James Reynolds, PE, Engineering Field Director, Richmond Field Office
for the State Health Commissioner pursuant to VA Code § 2.2-604

TEMPORARY PERMIT REQUIREMENTS

Temporary Operation Permit No. 2109646T

Lake Anna Technology Campus

Amazon Data Services, Inc., owner of the Lake Anna Technology Campus waterworks, shall comply with the temporary permit requirements below in compliance with Title 32.1 of the Code of Virginia and 12VAC5-590-10 *et seq.* of the Virginia *Waterworks Regulations (Regulations)*.

1. Complete construction of the permanent potable water system per the plans and specifications approved by the issuance of Construction Permit No. 92365 as required by 12VAC5-590-190 of the *Regulations*. Construction should be completed **no later than December 12, 2026**.
2. Upon exceeding 24 full-time employees reporting to the water system that will be regularly served by the waterworks for 26 or more weeks per year, contact the Richmond Field Office so that the water system classification can be updated to a nontransient noncommunity waterworks as required by 12VAC5-590-10 *et seq.* of the *Regulations*. Items that will need to be updated at that time include:
 - a. Bacteriological Sample Siting Plan
 - b. Development of Lead and Copper Monitoring Plan and Lead Service Line Inventory
 - c. Chemical sample schedules
 - d. Operator requirements

OPERATION PERMIT CONDITIONS

Operation Permit No.: 2109646T

Permit Effective Date: December 12, 2025

Waterworks Name: Lake Anna Technology Campus

Waterworks Class: Unclassified

OPERATOR REQUIREMENTS:

Operating personnel shall be in attendance as necessary to perform monitoring and process evaluation, and to make any process adjustments.

OPERATION, MONITORING, AND REPORTING:

Operation, monitoring, and reporting shall be in accordance with Title 32.1 of the *Code of Virginia* and 12VAC5-590-10 *et seq.* of the *Virginia Waterworks Regulations*.

WATERWORKS CAPACITY:

Source Capacity:

Well No. 2 (Well B): 25,200 gpd

Treatment Capacity:

The following treatment is provided:

UV Disinfection (voluntary)

Cation Exchange Softening (voluntary)

Corrosion Control, pH Adjustment chemical feed- Soda Ash (not a treatment technique requirement)

The permitted capacity is not limited by the installed treatment units.

Storage and Delivery Requirements:

The waterworks shall provide sufficient distribution storage and pumping capacity to meet peak hourly flow demand.

Permitted Capacity:

This waterworks is permitted for a capacity of 25,200 gpd, due to the limited source capacity.

**VIRGINIA DEPARTMENT OF HEALTH
WATERWORKS DESCRIPTION SHEET**

DATE: December 12, 2025

WATERWORKS NAME: Lake Anna Technology Campus **WATERWORKS CLASS:** Unclassified

COUNTY/CITY: Louisa County **TYPE:** Transient Noncommunity

PERMIT NUMBER: 2109646T

TYPE OF TREATMENT: pH adjustment, softening (ion exchange), UV disinfection

SOURCE: One drilled well

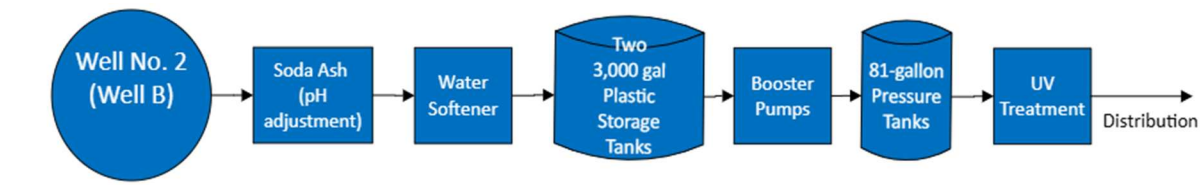
CAPACITY: 25,200 gpd

DESCRIPTION OF THE WATERWORKS

Service population

| | |
|--------------------------------|---|
| Business type | Industrial |
| Number customers served daily | 0 |
| Number of employees | Currently under active construction, no full time employees on site yet. Number of transient construction employees on-site average less than 1,000 per day |
| Number year round residents | 0 |
| Days/weeks/months of operation | 365 days per year |
| Hours per day of operation | 24 |
| Population served | 1,000 |
| Number of service connections | 2 |

System Diagram



For the tables below, enter the available information. Enter "unknown" if the information is not available.

Wells

| | | | |
|-----------------|---------------------|--|--|
| Name | Well No. 2 (Well B) | | |
| Well Class | 2 | | |
| Casing Depth | 60 ft | | |
| Casing Material | Black Steel | | |
| Grout Depth | 60 ft | | |
| Grout Type | Neat Cement | | |

| | | | |
|---|--|--|--|
| Screen Depths | None | | |
| Total Well Depth | 502 ft | | |
| Pump Depth | 63 ft | | |
| Pumping Capacity | 17.5 gpm | | |
| Yield | 36 gpm | | |
| Yield and Drawdown duration and date | | | |
| Treatment requirements (GUDI, 4-log virus, Fe+Mg control, etc.) | None | | |
| Pump control scheme | Float valves in 3,000 gallon storage tanks activate well pump when tank low level setpoint reached | | |

Pressure Tanks

| | | | |
|--------------------|--|--|--|
| Name | ST002- 81 Gallon Bladder Tanks | | |
| Nominal Capacity | 81 gal (each booster pump train has 1 tank, only one train runs at a time) | | |
| Effective Capacity | 27 gal | | |

Atmospheric Storage Tanks

| | | | |
|--------------------------------------|-----------------------------|-----------------------------|--|
| Name | ST001- 3,000 Gal Tank 1 | ST001- 3,000 Gal Tank 2 | |
| Constructed in Accordance with Regs? | Yes- Temporary Installation | Yes- Temporary Installation | |
| Nominal Capacity | 3,000 gal | 3,000 gal | |
| Effective Capacity | 3,000 gal | 3,000 gal | |
| Effective Storage Elevation | 0 ft above grade | 0 ft above grade | |
| Overflow Elevation | 8.8 ft above grade | 8.8 ft above grade | |
| Mixing or Aeration | None | None | |

Pump Stations

| | | | |
|---------------------------------|---|---|--|
| Name | PF001- Primary Booster Pump | PF001- Secondary Booster Pump | |
| Number of Pumps | 1 | 1 | |
| Individual Capacities of Pumps | 35 gpm | 28 gpm | |
| Firm Capacity of Pump Station | 35 gpm | 28 gpm | |
| Description of operation scheme | Pressure switch activates booster pumps | Pressure switch activates booster pumps | |

Chemical Feed Systems

| | | | |
|------------------------|------------------------------|--|--|
| Type | Soda Ash Feed-Diaphragm Pump | | |
| Metering Pump Capacity | 30 gpd | | |
| Chemical tank volume | 30 gal | | |
| SCADA/operating scheme | Activates with well pump | | |
| Required treatment? | No | | |
| Solution strength | Unknown | | |

OTHER

UV Treatment is provided after the booster pumps, prior to the entry point to the distribution system. It includes a bypass, status indicator, and sensor. The system is rated for 100 gpm.

The facilities listed are temporary facilities, except Well No. 2 (permanent), which will be utilized until facilities identified in Construction Permit No. 92365 issued on March 1, 2025, are delivered and installed. Well No. 2 is connected to the temporary facilities at the stub near the Access Control Building by above grade plastic waterline which is heat traced and insulated.

WATERWORKS CAPACITY

1. Estimated Water Demand:
 $(15 \text{ gpd/person})(1,000 \text{ persons}) = 15,000 \text{ gpd}$ (per *AWWA Design and Construction of Small Systems, 1999*)
Peak Hour Demand = $(4)(15,000 \text{ gpd})/(24 \text{ hr}) = 2,500 \text{ gal}$
2. Source Capacity:
Well No. 2 Well Yield = $(36 \text{ gpm})(1,440 \text{ min/day}) = 51,840 \text{ gpd}$
Well No. 2 Pump Capacity = $(17.5 \text{ gpm})(1,440 \text{ min/day}) = 25,200 \text{ gpd}$
3. Treatment Capacity: Installed treatment does not limit capacity of waterworks
4. Storage Capacity: $(2)(3,000 \text{ gal}) + 27 \text{ gal} = 6,027 \text{ gal}$

Noncommunity systems are required to meet peak hour demand.

Delivery Capacity
 $(17.5 \text{ gpm})(60 \text{ min}) + 6,027 \text{ gal} = 7,077 \text{ gal} > 2,500 \text{ gal peak hour demand}$

CONCLUSION:

This waterworks is permitted for a capacity of 25,200 gpd, due to the limited source capacity.

OPERATION PERMIT HISTORY

| Permit Issuance (Effective Date) | Description / Reason¹ |
|---|--|
| December 12, 2025 | Initial issuance of temporary permit for temporary treatment system and associated facilities. |
| | |