

**VIRGINIA DEPARTMENT OF HEALTH
OFFICE OF DRINKING WATER
GROUNDWATER SYSTEM SANITARY SURVEY REPORT**

SUBJECT: **Franklin County**
WATERWORKS: **Lake Forest**
PWSID: **5067356**

PART I - SYSTEM BACKGROUND
GENERAL INFORMATION

Owner Name: Western Virginia Water Authority	Waterworks Class: 6
Type of Waterworks: Community	
Contact Name: Mr. Travis Lane	
2012 South Jefferson St., Roanoke, VA. 24014	
Contact Phone Number: 540-283-8225	

D.O. License Class: 4	D.O. Has Required License: Yes
D.O. Legal Name: Mark Petrus *	License No. 1955007142 Exp. Date: 02/17

Inspection By: Jodi Jeanes	Inspection Date: 08/31/2016
Time Spent: One Hour	Last Inspection Date: 07/24/2014
Date to Reviewer: 10-4-16	Reviewed by/Date: <i>[Signature]</i> 10-4-16
Date to Reviewer: 10/3/16	Reviewed by/Date: <i>C. Morinda</i> 10/4/16
Inspection Type: Routine	
Present at Inspection: Mark Petrus and Jodi Jeanes	
Facilities Inspected: Two wells at one combined entry point tap, Hydro-pneumatic tank, Atmospheric tank, and Distribution system.	

Operation Permit Effective Date: Permit to be drafted	Waterworks Description Sheet Date: To be drafted
Permit Up-to-Date? No	Description Sheet Up-to-Date? No
No. Connections: one condo unit/12 houses	Population Served: Approximately 56
Avg. Daily Production: 1,500 gpd	Operation Permit Capacity: Unknown
Exceeds 80% Operation Permit Capacity? (max. 3 consecutive months): No	
If yes, explain:	
Treatment Provided: None	
SDWIS Inventory Information Current: Yes	

Comments: The Permit and waterworks description sheet will be updated on or after October 1, 2016 pertaining to the new ownership, Western Virginia Water Authority (WVWA) of the waterworks.

*Licensed operator at the time of the inspection.

COMPLIANCE HISTORY

Shaded Boxes Indicate a potential Significant Deficiency

REVISED TOTAL COLIFORM & GROUNDWATER RULES		
• BSSP Approved:	Yes	03/31/2016
• # of routine samples/monitoring period & frequency	1 RT/Month	
• Is plan current & appropriate for distribution system & population?	Yes	
• Is monitoring frequency correct?	Yes	
• Rotates and uses approved sites?	Yes	
• Measures chlorine residual for all samples, if chlorine is added?	N/A	
• RTCR Level 1 or 2 Assessments since last Survey?	No	
• Disinfection required? (adequate contact time)	No	
Source # / Name (if multiple sources, list)	N/A	
• 4-Log virus inactivation required?	No	
Source # / Name (if multiple sources, list)	N/A	
• 4-Log virus inactivation provided?	No	
Source # / Name (if multiple sources, list)	N/A	
• On-line chlorine analyzers required for chlorine residual?	N/A	
ROUTINE RAW WATER BACTERIOLOGICAL MONITORING (checked over past 12 months)		
• Required?	No	
○ If "Yes", Frequency:	N/A	
• # of <i>E. coli</i> positive Samples	N/A	
• # Samples with Total Coliform >50 CFU/100 mL	N/A	
GUDI DETERMINATION	RESULT	DATE
• Wells #1 & #2	Not Under the Influence	01/28/1994
SOURCE WATER ASSESSMENT PERFORMED		
• Wells # 1 & #2	No	
SOURCE WATER PROTECTION		
• Written source water protection plan?	No	
DDBP RULES - (Community & NTNC, Disinfectant Used)		
• Monitoring Plan approved and current?	N/A	
• Monitoring frequency required:	N/A	
• Operational Evaluation Level exceeded?	N/A	
Comments: None		

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PHASE II/V RULE		
Waivers current for <u>all</u> entry points?	Yes	
CONSUMER CONFIDENCE REPORTS (Community only)		
• Final report issued by deadline?	Yes	
• Certification Statement Received?	Yes	
LEAD & COPPER RULES (Community & NTNC)		
• Materials Survey/Sampling Plan Approved:	Yes	07/25/2008
• Water Quality Parameter (WQP) routine monitoring required? (Mandatory for > 50,000 population) ○ If yes, WQPs meet quality and frequency requirements?	No	
• Have Action Levels (90%) been exceeded in past? ○ If so, when?	No	
• Public Education requirements met if required?	N/A	
• Optimized Corrosion Control Treatment (OCCT) required? ○ If "Yes", is Operational Control Monitoring performed and acceptable?	No	
• All consumer notice requirements met?	Yes	
CROSS-CONNECTION CONTROL PROGRAM		
• Approved:	Yes	07/22/2008
• Inspected Records This Visit	No, Records located at a different location	
○ Program Active	Yes	
○ Satisfactory	Yes	
(MONTHLY) OPERATION REPORTS		
• All submitted for past 12 months?	Yes	
• Operational treatment parameters monitored?	Yes	
• All required data reported?	Yes	
EMERGENCY MGMT. PLAN for Extended Power Outage (Community only)		
• Verification received?	Yes	07/31/2012
• Current?	Yes	
ASSET MANAGEMENT (recommendation)		
• Written Plan Developed?	No	
• Routine Maintenance Performed?	Yes	
Comments: None		

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ENFORCEMENT		DATE
• Administrative/Consent Order in Effect:	No	
• Violations / Enforcement Actions Since Last Survey:	No	
• Owner issued Public Notice as required?	N/A	
• Active Corrective Action Plan?	N/A	N/A
○ If "Yes", is waterworks on schedule?	N/A	
• SDWIS Violation & Enforcement Action, Public Notification data current?	Yes	
COMPLAINTS SINCE LAST INSPECTION:		No
• If yes, summarize:		
Comments: None		

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Chemical Schedule for 5067356 LAKE FOREST

EP001 ENTRY POINT
 EP001 ENTRY PT SAMPLE TAP

<u>Group</u>	<u>Last</u>	<u>Freq.</u>	<u>Next</u>	<u>Waiver Exp. Date</u>	<u>Comments</u>
SOCs - Carbamates				12/31/2019	
SOCs - Chlorinated Acidic Herbicides				12/31/2019	
SOCs - Diquat				12/31/2019	
SOCs - Semi-Volatile Organic Chemical				12/31/2019	
SOCs - Volatile Fumigants				12/31/2019	
Nitrate + Nitrite (Combined)	10/26/2015	12	10/26/2016		
Inorganics	12/17/2013	36	12/17/2016		
Radiological	12/22/2010	72	12/22/2016		
Metals	12/24/2013	36	12/24/2016		
VOC	11/4/2014	36	11/4/2017		
Cyanide	5/20/2014	108	5/20/2023	12/31/2019	

5 Lead and Copper Samples due 8/31/2017

A. WELL # 2		C. STORAGE - PNEUMATIC TANK(S) 2,000 Gallon Bladder Tank in Control Building		F. NEW ACTIVITIES OR POLLUTION SOURCES within 1000 ft radius of well that present a significant/acute health risk.	
Sanitary Casing Seal /Cap	Yes	Type: Pre-Pressurized or Hydro-Pneumatic	Hydro-pneumatic	Activity or Pollution Source	Approx. Distance from Well
Elbowed Casing Vent/Screened	Yes	Drain Protected from Contamination	Yes		
12" Casing Extension	Yes	Pressure Gauge/Reading	45 psi		
Concrete Pad (6' Square)	Yes	Pressure Operating Range	4-60 psi		
Well Lot Condition (50 ft Radius)	Good	Sight Glass/Level Indicator	Yes		
Protected from Flood Waters/Runoff	Yes	Sample Tap Available	Yes		
Discharge Check Valve	Yes	Pressurizing System	Yes		
Discharge Shut-Off Valve	Yes	Vacuum Relief Valve	Yes		
Valved Blow-Off	Yes	Pressure Relief Valve	Yes		
Raw Water Sample Tap	Yes	Air Relief Valve	Yes		
Water Level Gauge or Transducer	Yes	Exterior Condition	Fair		
Operable Water Meter/Reading	Yes	Normal Pump Cycling	Yes		
Permitted Capacity (gpd)	In Process	Tank Watertight, Structurally Sound	Yes		
Pumping Rate Observed (gpm)	N/O	Flushed/Cleaned Date	Every 6 Mo.		
Pumping Average hrs/day	4.4 Hours	Dept. of Labor & Industry Exp. Date (>120 gal.)	04/2017		
Permitted Source Capacity Exceeded?	No	D. CHEM. FEED SYSTEMS SAFETY / GENERAL			
Discharge Head Observed (psi)	No	Do any chemical storage and handling facilities offer potential for explosions?	No		
All Weather Access	Yes	Is adequate safety equipment provided for chemical handling (i.e. rubber gloves, breathing apparatus, goggle, aprons, etc.)?	Yes		
		Are Material Data Safety Sheets (MSDS) available?	Yes		
		Are hazardous chemical containers labeled?	Yes		
		Is adequate chemical storage area provided?	Yes		
		Are there approved backflow prevention devices installed to isolate process water from finished water?	Yes		
		Does the waterworks have adequate employee safety	Yes		
Comments: Permitted capacity will be determined with permit renewal.					

[illegible]

[illegible]

J. DISTRIBUTION SYSTEM EVALUATION	
Pipe Material(s): PVC and Galvanized Steel	
Individual Service Meters provided?	No
○ If yes, routine calibration & replacement program in effect?	N/A
Flushing Provisions (hydrants, blow-offs, etc.) available?	Yes
Routine Flushing Program in practice?	Yes
○ If yes, describe:	Every Six Months
Isolation valves exercised?	Yes
○ If yes, describe:	Every Six Months
Air/vacuum relief valves checked for operability?	Yes
○ If yes, describe:	Every Six Months
Pressure monitoring of distribution system?	Yes
○ If yes, describe:	As Needed
Adequate Pressure Maintained Throughout? (>20 psi @ peak flow)	
Problems/Complaints in past year: No <input type="checkbox"/> taste & odor <input type="checkbox"/> pressure <input type="checkbox"/> turbidity/sediment <input type="checkbox"/> color <input type="checkbox"/> service interruptions <input type="checkbox"/> other Describe:	
Pipe Repair - proper disinfection/sampling procedures used?	As Needed
Re-chlorination practiced? (If yes, see separate Re-chlorination table in this report.)	N/A
FIRE PROTECTION PROVIDED?	
How often are Fire Flow Tests conducted (with fire dept.)?	N/A
How often are hydrants checked for operability?	N/A
Are fire hydrants "NFPA-coded" to indicate maximum available fire flow?	N/A
○ If yes, is operator familiar with fire hydrant "code"?	N/A
Are operators familiar with tank levels necessary to provide target fire flow for target duration?	N/A
Does waterworks have routine procedures for contacting local fire department(s) to verify available fire flow and duration?	N/A
MANAGEMENT	
Plans/Sketches/Maps with valve & master meter locations?	Yes
Records maintained (should be kept for 3 years minimum): <input checked="" type="checkbox"/> Repairs <input checked="" type="checkbox"/> Flushing <input type="checkbox"/> Hydrant Testing <input type="checkbox"/> Fire Flow Tests <input type="checkbox"/> Water Audits <input checked="" type="checkbox"/> Complaints	
How often are Water Audits conducted?	No Water Meters
Leakage rates > 30%? Explain:	No
Comments: None	

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