

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

ELECTRONIC INVESTIGATION INTO)
EXCESSIVE WATER LOSS BY KENTUCKY'S) Case No. 2019-00041
JURISDICTIONAL WATER UTILITIES)

VERIFICATION OF CHRIS ROSE

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF CARROLL)

Chris Rose, being duly sworn, states that he has supervised the preparation of the responses of West Carroll Water District to Commission Staff's Second Requests for Information issued on May 3, 2019 in the above-referenced proceeding and that the matters and things set forth in those responses are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

[Handwritten signature of Chris Rose]
CHRIS ROSE

The foregoing Verification was signed, acknowledged and sworn to before me this 24th day of May, 2019, by Chris Rose.

[Handwritten signature of Corina Beach]
NOTARY PUBLIC
Commission Expiration: Sept. 25, 2021

COMMONWEALTH OF KENTUCKY

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IN THE MATTER OF:

ELECTRONIC INVESTIGATION INTO)
EXCESSIVE WATER LOSS BY KENTUCKY'S) Case No. 2019-00041
JURISDICTIONAL WATER UTILITIES)

VERIFICATION OF VICKIE EDWARDS

COMMONWEALTH OF KENTUCKY)
)
COUNTY OF CARROLL)

Vickie Edwards, being duly sworn, states that she has supervised the preparation of the responses of West Carroll Water District to Commission Staff's Second Requests for Information issued on May 3, 2019 in the above-referenced proceeding and that the matters and things set forth in those responses are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Vickie Edwards
VICKIE EDWARDS

The foregoing Verification was signed, acknowledged and sworn to before me this 24th day of May, 2019, by Vickie Edwards.

Corina Beach
NOTARY PUBLIC
Commission Expiration: Sept. 25, 2021

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

1. State the effective date of the water utility's last rate increase, either through the alternative rate filing procedure, through a general adjustment of rates, or through a purchased water adjustment, and provide the Board Resolution approving the rate increase.

Response:

The effective date of the last rate increase was April 24, 2018. This was the result of an alternative rate filing application. Please see the attached Board Minutes.

**MINUTES
WEST CARROLL WATER BOARD MEETING
DECEMBER 13th, 2017**

WEST CARROLL BOARD:

VICKIE EDWARDS
KAREN LOVINS
DAN REISNER
JAMES LUCAS

CARROLLTON UTILITIES:

BILL OSBORNE
CHRIS ROSE
CHAS ROBBINS

CALL TO ORDER

THE MEETING WAS CALLED TO ORDER AT 6:07 P.M.

READING OF MINUTES

MOTION WAS MADE BY MR REISNER AND SECONDED BY MRS LOVINS TO APPROVE THE MINUTES OF THE MEETING OF NOVEMBER 16th, 2017.

VOTE: 4 AYES 0 NAYS

COMMISSIONER'S REPORT

No reports.

MAINTENANCE REPORT

SERVICE ORDERS

11/15/17-12/12/17

NEW SERVICES

LEAK REPAIR

11/30/2017 3794 HWY 42 EAST- HOUSE FIRE- FLUSH PLUG LEAKED UNTIL FOUND THROUGH VALVING- EXERCIZED FLUSH PLUG STEM UNTIL FIXED- NOV LOSS 184,320 GALS

11/28/2017 93 EGERTON RD- REPAIRED MAIN WITH 1-1" CLAMP, 6 MAN HRS, 3 MINI HOE HRS, NOV LOSS-31,680 GALS

11/30/2017 24 MATTICK RD-SERVICE LINE LEAK REPAIRED WITH 1-1" CLAMP, 8 MAN HRS, 4 MINI HOE HRS, NOV LOSS-69,120 GALS

12/5/2017 1937 GREENS BOTTOM RD-BREAK JUST PRIOR TO WWTP METER, 1" METER AND SETTER, 2-1X3" TAPS, 2-1" CORP STOPS, 12 MAN HRS, 6 MINI HOE HRS, DEC LOSS-10,000 GALS

METER CHANGES	109	CHANGING METERS FOR YEARLY CHANGE OUT PROGRAM
TURN OFF	5	
TURN ON	2	

READ OUTS	4
RE-READS	13
WATER LEAK CHECK	4
NON-PAY TURN OFFS	4
RECONNECT FOR PAYMENT	6

TEMPORARY TURN OFF DUE TO LEAK IN CUSTOMER LINES 0

BROWN WATER

11/21/17 721 CARLISLE RD-WATER WAS CLEARING UP ON ITS OWNER PER THE CUSTOMER- NO FLUSHING NEEDED
 11/21/17 894 HWY 55-AIR IN LINES MADE WATER LOOK DISCOLORED
 11/22/17 36 CONNECTOR RD-FLUSHED 500 GALS
 11/28/17 3159 CARLISLE RD-FLUSHED 1000 GALS
 12/12/17 3140 HWY 42 W-METERS WERE BEING CHANGED OUT AND STIRRED UP BROWN WATER

ROUTINE MAINTENANCE

11/17/17 W PRONG LOCUST- ADDED A RING TO VAULT TO RAISE UP
 11/25/17 1759 CARLISLE RD-WATER LEAK IN VAULT- HAD TO REPLACE PRESSURE REGULATOR
 12/5/17 3646 KINGS RIDGE RD-ADDED INSULATOR
 12/8/17 39 WRIGHTS RIDGE-THAWED OUT WATER, FIXED EXPOSED LINE
 12/11/17 1089 HWY 36 W-CUSTOMER THOUGHT LEAK- NOT A LEAK- FROZEN GROUND AND WATER FROM ROADWAY

CUSTOMER COMPLAINTS

PRESSURE PROBLEM

SPECIAL INFORMATION

MAINTENANCE REPORT, CONTINUED

Staff reported on the above maintenance issues and:

- Repaired 4 leaks
 - Hardy Creek – leak on flush plug
 - Egerton Lane – service line, 1 ¼" clamp
 - Mattick Road – service line, clamp
 - Green Bottom – CU WWTP – service line blew apart before meter when we fixed leak on our side
- Valved and monitored for leaks
- Changed out meters – 170 on list to be changed, changed out 145, which meets PSC % required for the year
- (1) frozen line on Wrights Ridge
- (1) frozen line on customers side on Kings Ridge
- 1089 Hwy 36 West – water running off hill into road – customer side or spring

GENERAL MANAGER'S REPORT

Mr. Bill Osborne reported on:

- **JL Davis case** – Mr. Barry Baxter preparing a motion to have Jim Crawford removed from the case
- **Debt refinance options** – Mr. Osborne presented data from different financing options for the Board to consider paying off high interest RD loans with lower interest funding and pay off sooner. Staff informed the board that they will have to request approval from PSC to payoff the RD debt and take on new debt with another entity. PSC staff advises not to make this request until after the final approval is received from PSC on the rate increase request. Board members think a 20-year loan at lowest rate would be best for the district. Staff will check with First National Bank, US Bank, and Farmer's Bank of Milton along with KACo and KLC on schedules for principle and interest payments for \$572,000 for 20 years.

FINANCIAL REPORT

Mrs. Robbins presented the PSC staff report regarding the rate increase request. PSC staff recommends a 20.43% rate increase which would generate approximately \$99,372 as opposed to the 20% originally requested by the board. The board has the option to agree with the PSC's proposed increase of 20.43%, but they would have to prepare a public notice for their customers and advertise that notice in the newspapers again because they have already run the public notice and informed the customers of the original 20% increase request. The board doesn't think its feasible to pay for additional advertising cost for only \$2,094 in additional annual revenue.

MOTION WAS MADE BY MR LUCAS AND SECONDED BY MRS LOVINES TO APPROVE AND REQUEST THE ORIGINAL 20% RATE INCREASE FROM PSC WHICH WILL RESULT IN AN INCREASE OF APPROXIMATELY \$\$97,278 IN REVENUE.

VOTE: 4 AYES 0 NAYS

Mrs. Robbins presented the 2018 annual budget to the board for their approval. This budget reflects a 15% increase in revenue resulting from a partial year of the 20% expected increase in revenue once the rate increase is finally approved by PSC.

MOTION WAS MADE BY MR LUCAS AND SECONDED BY MRS LOVINS TO APPROVE THE 2018 BUDGET AS PRESENTED AND APPROVES SUBMISSION OF BUDGET TO CARROLL AND TRIMBLE COUNTY FISCAL COURTS, RURAL DEVELOPMENT AND THE OFFICE FOR LOCAL GOVERNMENT.

VOTE: 4 AYES 0 NAYS

Mrs. Robbins presented the audit engagement letter from Raisor, Zapp and Woods for the 2017 audit year.

MOTION WAS MADE BY MR REISNER AND SECONDED BY MRS LOVINS TO APPROVE THE AUDIT ENGAGEMENT LETTER FOR AUDIT YEAR 2017 WITH RAISOR, ZAPP AND WOODS FOR AN AMOUNT NOT TO EXCEED \$4,975.

VOTE: 4 AYES 0 NAYS

1018

MOTION WAS MADE BY MR LUCAS AND SECONDED BY MRS LOVINS TO APPROVE THE CHECKS AS WRITTEN.

VOTE: 4 AYES 0 NAYS


OFFICER ELECTIONS FOR 2018

Board decided to table officer elections until next month when a full board is present.

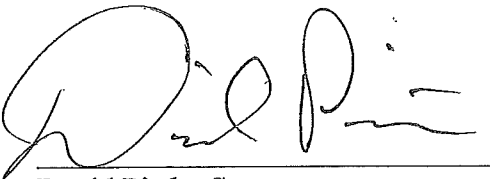
ADJOURNMENT

MOTION WAS MADE BY MR. REISNER AND SECONDED BY MS. LOVINS TO ADJOURN AT 7:17 P.M.

VOTE: 4 AYES 0 NAYS



Vickie Edwards, Chair



David Pirtle, Secretary

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

2. State whether the water utility's board of commissioners or directors has discussed applying for a rate increase since January 1, 2018, utilizing either the alternative rate filing procedure or through a general adjustment of rates. If the utility can state this affirmatively, provide the board minutes where this was discussed:

Response:

The Board has not discussed a general rate increase since January 1, 2018. West Carroll filed an alternative rate filing on June 23, 2017 and the rates became effective on April 24, 2018. A purchased water adjustment was discussed on January 17, 2019 and was filed with the Commission on April 2, 2019 and is pending Commission approval. Please see the attached minutes from the January 17, 2019 meeting.

MINUTES
WEST CARROLL WATER DISTRICT
BOARD MEETING
January 17th, 2019

WEST CARROLL BOARD:

VICKIE EDWARDS
KAREN LOVINS (ABSENT)
JAMES LUCAS
DAN REISNER
DAVID PIRTLE

CARROLLTON UTILITIES:

BILL OSBORNE
CHAS ROBBINS
SARAH HUDGINS

CALL TO ORDER

THE MEETING WAS CALLED TO ORDER AT 6:03 P.M.

GUESTS:

Kim Hall, Lance Hall, and Chuck Ferguson from Hardy Creek Rd. were present to request an extension on Hardy Creek to five unserved customers. Bill Osborne reported that the project had been submitted to the Northern Kentucky Area Development District to receive a project number. Once this number was received, grants could be applied for. Vickie Edwards encouraged the guests to attend a Trimble County Fiscal Court meeting, create a petition signed by the unserved families, and to get their wells tested for possible contamination. Vickie Edwards told the guests that at this time, the project was not feasible.

READING OF MINUTES

MOTION WAS MADE BY MR REISNER AND SECONDED BY MR PIRTLE TO APPROVE THE MINUTES OF THE MEETING OF DECEMBER 20TH, 2018.

VOTE: 4 AYES 0 NAYS

COMMISSIONER'S REPORT

- Vickie Edwards requested that employees check on a possible leak on HWY 36 between Locust and Notchlick.
- David Pirtle reported that there was a fire and he believed the lock had been cut on the Culls Ridge Tank by the fire department. He requested employees to check on this:

MAINTENANCE REPORT

Bill Osborne gave the maintenance report.

- Eight radio reads have been installed
- No bids were received for the scrap meters.

MOTION WAS MADE BY MR. PIRTLE AND SECONDED BY MR. LUCAS TO SELL SURPLUS METERS AS SCRAP TO COMPANY WITH HIGHEST QUOTE.

VOTE: 4 AYES 0 NAYS

- PSC Case 2018-00394 – PSC required all water districts to respond regarding methods of tracking and reporting water loss and use of a new reporting form. This response was submitted on 1-16-19.
- Sunstrand – New hemp manufacturer going into old Kawneer building will be a small water user.
- Insulators – Insulators are needed due to cold weather approaching and low numbers in stock.

MOTION WAS MADE BY MR. LUCAS TO PURCHASE 10 INSULATORS AND SECONDED BY MR. PIRTLE.

VOTE: 4 AYES 0 NAYS

- JL Davis – nothing new to report
- Georges Creek Subdivision proposed by Travis Leap – nothing new to report

GENERAL MANAGER’S REPORT

Bill Osborne reported:

- Purchased Water Adjustment – West Carroll received notice from Carrollton Utilities that the wholesale water rate has been increased. West Carroll needs to do a purchased water adjustment change.

MOTION WAS MADE BY MR. PIRTLE AND SECONDED BY MR. LUCAS TO SUBMIT THE PURCHASED WATER ADJUSTMENT TO THE PUBLIC SERVICE COMMISSION.

VOTE: 4 AYES 0 NAYS

FINANCIAL REPORT

MOTION WAS MADE BY MR. REISNER AND SECONDED BY MRS. LOVINS TO APPROVE THE CHECKS AS WRITTEN.

VOTE: 4 AYES 0 NAYS

THE BOARD WAS INFORMED OF THE RETIREMENT OF FINANCE DIRECTOR, CHASTITY ROBBINS, AND THE HIRING OF SARAH HUDGINS AS HER REPLACEMENT.

MOTION WAS MADE BY MR. REISNER AND SECONDED BY MR. PIRTLE TO ADD SARAH HUDGINS AS AN AUTHORIZED SIGNER ON WEST CARROLL WATER DISTRICTS BANK


ACCOUNTS AND REMOVE CHASTITY ROBBINS EFFECTIVE IMMEDIATELY.

VOTE: 4 AYES 0 NAYS

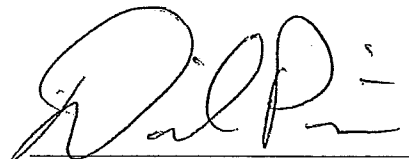
ADJOURNMENT

MOTION WAS MADE BY MR. PIRTLE AND SECONDED BY MRS. LOVINS TO ADJOURN AT 7:37 P.M.

VOTE: 4 AYES 0 NAYS



Vickie Edwards, Chair



David Pirtle, Secretary

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

3. Provide a list of the top three obstacles the water utility believes are preventing or slowing the progress of the water utility in reducing line loss.

Response:

The top three obstacles preventing or slowing progress of the water loss reduction are as follows:

- Aging infrastructure;
- Customer density; and,
- Customer make-up

An EPA report (“Report”) titled, *Water Audits and Water Loss Control for Public Water Systems*, stated that the average water loss for **ALL** public water systems in the US is 16 percent. The Report listed aging infrastructure as a primary factor. Rural water systems such as West Carroll, face an ever harder water loss task than the ‘average’ water system represented by the Report due to customer density and the make-up of the customer base. West Carroll has a low customer density, meaning that West Carroll has extended water lines very long distances to serve few customers. These longer water mains that are typically constructed in remote areas put West Carroll at higher risk for leaks and make leaks more difficult to locate. The customer make-up is also a big factor for West Carroll. West Carroll primarily serves only residential customers. The lack of a significant commercial and industrial base means that the average water usage by customers is much smaller than the average user listed

in the Report.

American Water Works Association (“AWWA”) has developed a computer based water audit considering the characteristics of a water system and providing benchmarking ability. The audit has proven to be very beneficial to track performance and compare efficiencies among water utilities. AWWA’s water audit methodology is the best practice approach recommended for North American water utilities to employ, M36 Water Audits and Loss Control Programs (4th Ed; 2016). The water audit software (“FWAS”) was first released in 2006 with the current Version 5.0 released in 2014. The FWAS includes a comprehensive list of inputs to calculate a series of performance indicators which give an effective rating of the system efficiency. Infrastructure Leakage Index (“ILI”) is a key performance indicator provided by the audit as it represents the ration of Current Annual Actual Losses to the Unavoidable Annual Real Losses. An ILI of 1.0 or less is considered optimal. The FWAS also includes a data grading capability that allows the user to rate, or grade, the trustworthiness of the data inputted into the audit. A Data Validity Score (“DVS”) calculated by the FWAS represents the overall trustworthiness of the water audit. AWWA guidance recommends the audit be validated by a third party. West Carroll utilized the Rural Community Assistance Partnership (“RCAP”) to perform an independent validation. Please see Response 41 to Commission Staff’s First Request for Information for a copy of this report.

The results of the 2017 water audit indicated: ILI = 0.89 and DVS = 83 out of 100

The State of Georgia has followed this approach using the FWAS annually and requiring data validation requirements. All audits in Georgia have been validated since 2011 and are publicly available on the internet. Comparing the water audit indicators of West Carroll to all of the public water systems in Georgia indicated that West Carroll would be in the top 21 percent of water districts with regard to the ILI . This includes 215 water systems.

While aging infrastructure, terrain, customer density and customer make-up are all critical factors slowing the progress to reach the Commission's water loss target of 15 percent, ultimately, it is the customer that must be able to pay the cost of the wholesale main replacements. An analysis such as the AWWA's water audit program which identifies an optimal water loss based on each systems specific characteristic should be considered before imposing high debt service on the consumer in an attempt to reach an arbitrary water loss that may or may not be realistic for each water utility.

West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019

4. Provide the utility's most recent monthly water loss report.

Response: Please see attached.

PUBLIC SERVICE COMMISSION

Monthly Water Loss Report

Water Utility:

For the Month of: Year:

LINE #	ITEM	GALLONS (Omit 000's)	
1	WATER PRODUCED, PURCHASED & DISTRIBUTED		
2	Water Produced		
3	Water Purchased	5,339	
4	TOTAL PRODUCED AND PURCHASED	5,339	
5			
6	WATER SALES		
7	Residential	2,841	
8	Commercial	188	
9	Industrial		
10	Bulk Loading Stations		
11	Wholesale		
12	Other Sales		
13	TOTAL WATER SALES	3,029	56.7%
14			
15	OTHER WATER USED		
16	Utility and/or Water Treatment Plant		
17	Wastewater Plant		
18	System Flushing		
19	Fire Department	-	
20	Other		
21	TOTAL OTHER WATER USED	-	0.0%
22			
23	WATER LOSS		
24	Tank Overflows		
25	Line Breaks	588	
26	Line Leaks	1,722	
27	Other		
28	TOTAL LINE LOSS	2,310	43.3%
29			
30	Note: Line 13 + Line 21 + Line 28 Must Equal Line 4		
31			
32	WATER LOSS PERCENTAGE		
33	Unaccounted-For Water (Line 28 divided by Line 4)	43.3%	

**West Carroll Water District
Case No. 2019-00041
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5. Provide the name and occupation, if any, of each of the water utility's current commissioners including the highest level of education attained by each.

Response:

Vickie Edwards – Retired – Bachelor's Degree

David Pirtle – Stihl Repair Specialist – High School Diploma

Dan Reisner – Retired – College (four years)

Karen Lovins – Housewife/Caregiver – High School Diploma

James Lucas – Maintenance Man – GED

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

6. Provide the following training information:
- a. State whether the water utility allocates funds in its annual operating budget to provide training to its water personnel.
 - b. If so, state the amount allocated in the last three calendar years.
 - c. Identify any training programs, free of charge or otherwise, that water personnel have taken and individuals, agencies, or suppliers providing the training program.

Response:

- a. West Carroll does not have employees. West Carroll has a contact with Carrollton Utilities to provide all operating services. The cost for training employees is covered by Carrollton Utilities as part of the operation costs. Therefore, West Carroll does not budget any additional funds for training.
- b. See Response a above.
- c. Please see Response a above. Also, please see West Carroll's response number 15 to Commission Staff's initial requests for information for information regarding the training of Carrollton Utilities personnel.

The Board members have attended trainings presented by Kentucky Rural Water Association and the Commission.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

7. Provide the following system information in a formatted and tabulated Excel spreadsheet for each applicable asset:
 - a. For transmission and distribution lines, provide the diameter size, length in miles, type of material, and average age of the lines. When PVC is used, provide the specific type of PVC used.
 - b. For service connection lines, provide the service connection size, number, type of material, and average age of the lines. When PVC is used, provide the specific type of PVC used.
 - c. For customer meters, provide the customer meter size, number, manufacturer/model, and the average age of the customer meters.

Response:

- a. Please see attached.
- b. Please see attached.
- c. Please see attached.

West Carroll, Mains	Description	Year	Size	Material	Type	Length ft.
Prestonville	Ky River Bridge Crossing	1976	6"	Steel	Sch. 40	700
Prestonville	Front Street	1976	6"	PVC	SDR 26	600
Prestonville	Carlisle Street	1976	3"	PVC	SDR 26	580
Prestonville	Bridge Street	1976	6"	PVC	SDR 26	1200
Prestonville	Mattick Street	1976	6"	PVC	SDR 26	350
Hwy 36 Phase 1	Pville to Locust Creek	1976	4"	PVC	SDR 26	23000
Hwy 55 Phase 1	Pville to end of Cton system just past Eberenz 6" portion	1976	6"	PVC	SDR 26	2700
Hwy 55 Phase 1	Pville to end of Cton system just past Eberenz 4" portion	1976	4"	PVC	SDR 26	15800
Hwy 55 Phase 1	PE line behind Bickers	2000	8"	HDPE	DR13	2200
Hwy 389 Phase 1	Hwy 55 to Interstate	1976	4"	PVC	SDR 26	14000
Greens Bottom	All 4" in Bottom including Sandlin and Pate Lane	1976	4"	PVC	SDR 26	13000
All of English	All 4" north side of tracks	1976	4"	PVC	SDR 26	4400
Old Carlisle Rd	All of old Carlisle Rd	1976	3"	PVC	SDR 26	1100
Carlisle Rd Phase 1	42 to Barn/ first valve	1976	3"	PVC	SDR 26	4500
Notch Lick Phase 1	Hwy 36 1800 ft.	1976	3"	HDPE	DR 13	1800
Hwy 42 Phase 1	Hwy 36 to Kings Ridge	1976	4"	PVC	SDR 26	4000
Kings Ridge/Palmyra	Top of hill from KR to Trimble Co line 6" portion	1976	6"	PVC	SDR 26	10600
Kings Ridge/Palmyra	Top of hill from KR to Trimble Co line 4" portion	1976	4"	PVC	SDR 26	19000
Culls Ridge Phase 1	Palmyra to curve before Clint Yokum 6" portion	1976	6"	PVC	SDR 26	1900
Culls Ridge Phase 1	Palmyra to curve before Clint Yokum 3" portion	1976	3"	PVC	SDR 26	9600
Bells Ridge 3"	Kings Ridge to Noah Lane	1976	3"	PVC	SDR 26	18500
Henry Co Hwy 55	Henry co master meter over to Calender Rd	1976	4"	PVC	SDR 21	2000
Calender Rd	Georges Creek to Moundhill	1976	4"	PVC	SDR 26	5300
Moundhill	Winery to Calender Rd	1976	4"	PVC	SDR 26	20000
Vories Rd	All of Vories Rd, later tied onto for dripping springs	1976	3"	PVC	SDR 26	4000
Millcreek Phase 1	Hwy 389 to first flush plug	1976	3"	PVC	SDR 26	7700
Fox Hill Line	Moundhill to Carlisle Rd	1976	4"	PVC	SDR 26	5600
Pville Madison St	Tie in front street to end of Madison St.	1982	3"	PVC	SDR 21	600
Hwy 389 Phase 2	English at Railroad tracks to Gilgal booster	1982	4"	PVC	SDR 26	6300
Gilgal	All of Gilgal	1982	4"	PVC	SDR 26	18400
Notch Lick Phase 2	Monitoring meter to end of main	1982	3"	PVC	SDR 21	6000
Hwy 42 Phase 2	Kings Ridge to Millers Branch	1983	4"	PVC	SDR 26	32000
Locust Phase 1	East and West to sharp curve prior to 36	1983	4"	PVC	SDR 26	4400
East prong Locust	Tie in at Kings Ridge ends at locust tie in	1983	4"	PVC	SDR 26	21000
West prong Locust	Locust to end of West Prong	1983	4"	PVC	SDR 26	11500
Carlisle Rd Phase 2	Barn to County line	1983	3"	PVC	SDR 26	22000
Windy Ridge	All of Windy Ridge	1983	3"	PVC	SDR 26	19000
Wrights Ridge	All of Wrights Ridge	1983	4"	PVC	SDR 26	200
Hwy 42 Phase 3	Millers Branch to Hardy Creek	1993	4"	PVC	SDR 26	8500
Hardy Booster to Bells	Booster station to Bells 3" including Noah Lane	1993	3"	PVC	C900	1500
Fairview Ridge, Milton System	All of Fairview from Master Meter to end	1993	3"	PVC	SDR 26	14800
Moundhill booster and tank	From foot of Moundhill to Joe Martin Bladder Booster	1993	4"	Ductile	Class 350	6000
Moundhill booster and tank	From foot of Moundhill to Joe Martin Bladder Booster	1993	6"	PVC	C900	5000
Hwy 389 Phase 3	Vance to County Line	1993	4"	PVC	C900	13800
Old gilgal	All of old gilgal to include Sheehan Rd	1993	3"	PVC	SDR 21	10900
Millcreek Phase 2	Flush plug to interstate bridges	1993	3"	PVC	SDR 21	10800
Woodrow Wilson Phase 1	Tie in Henry co to sharp curve on Woodrow Wilson	1993	3"	PVC	SDR 26	5500
Moundhill Tank	110k standpipe storage tank	1993	n/a	n/a	n/a	0
Landy Hill	All of Landy Hill	1998	3"	PVC	SDR 21	2000
Hwy 389 Phase 4	Co line to Gividen	1998	4"	PVC	SDR 21	1800
Als Drive	All of Als Drive	1998	3"	PVC	SDR 26	1000
Connector Rd	All of Connector Rd	1998	3"	PVC	SDR 26	1400
Carlisle Rd Phase 3	Tie in priot to county line, crossing river, tie at Ruby Dr.	1998	3"	PVC	SDR 26	6800
Woodrow Wilson Phase 2	Connects middle section from sharp curve to Millcreek	1998	3"	PVC	SDR 26	7900
Dripping Springs	All of Dripping Springs	1998	3"	PVC	SDR 21	6800
Georges Creek	All of Georges Creek	1998	4"	PVC	SDR 21	9000
Hartman Landing	All of Hartman Landing	1999	8"	PVC	C900	1500
Hwy 389 Phase 5	Gividen to end of line	2000	4"	PVC	SDR 21	4000
8" Interstate to Gilgal Booster	Tie in at Mcdonalds to English	2005	8"	PVC	C900	10600
6" Interstate to Gilgal Booster	English to Gilgal Booster	2005	6"	PVC	C900	6500
Hunters Heights	tie in at 36 to flug plug at foot of hill	2005	3"	PVC	SDR 26	3800
Hampton Lane	All of Hampton Lane	2005	3"	PVC	SDR 26	5500
Conway Rd	All of Conway Rd, tie in at 36	2005	3"	PVC	SDR 26	1800
Hardy Creek Phase 3	Last valve to end of main	2005	3"	PVC	SDR 26	2200
Culls Ridge Phase 2	Yokum to Duncan	2005	3"	PVC	C900	2600
Millcreek Phase 3	Interstate bridges to end of main	2005	3"	PVC	SDR 26	2900
Bells Ridge 4"	Tie in at Kings Ridge ends at Noah lane tie in with 3"	2005	4"	PVC	SDR 21	18500
Hwy 55 Phase 2	tie in at Harlold Clifton over hill to 55	2005	4"	PVC	C900	5000
Locust Phase 2	Hwy 36 to first flush plug	2005	3"	PVC	SDR 26	2400
Hwy 36 Phase 2	Locust creek to Spillman Lane	2005	4"	PVC	SDR 26	27000
Priors Branch Rd	All of Priors Branch	2005	3"	PVC	SDR 26	1700
Tom Town Rd	All of Tom Town Rd	2005	3"	PVC	SDR 26	2400
Gilgal Tank	50k elevated storage tank	2005	n/a	n/a	n/a	0
Bells Ridge Tank	100k elevated storage tank	2005	n/a	n/a	n/a	0
Greens Bottom Line to Plant	Tie in at Greens bottom 8" back to WWTP	2006	6"	PVC	SDR 21	3300
RD Kendall Rd	All of RD Kendall Rd	2012	4"	PVC	SDR 21	7800
6" Pville to KR Booster	New booster suction line to Kings Ridge	2012	6"	PVC	DR 18	10000
Gilgal Booster to Tank	New booster discharge line to tank	2012	6"	Ductile	Class 350	2500
Gilgal Booster to Tank	New booster discharge line to tank	2012	6"	PVC	DR 18	3500
Nora Lane	All of Nora Lane	2012	4"	PVC	SDR 21	2600
	Average Year	1991			TOTAL MILES	109.3
	Average Age	28				
	Oldest Main Line	43				
	Newest Main Line	7				

Service Connections including inactive accounts

Quantity	Size	Material	Type	Age
2	2"	PVC	SDR26	2005
400	1.25"	Polyethylene	Cl160	1976
15	1"	Polyethylene	Cl160	1976
5	1"	Polyethylene	Cl160	1983
375	3/4"	Polyethylene	Cl160	1976
60	3/4"	Polyethylene	Cl160	1982
55	3/4"	Polyethylene	Cl160	1983
100	3/4"	Polyethylene	Cl160	1993
25	3/4"	Polyethylene	Cl160	1998
125	3/4"	Polyethylene	Cl160	2005
1	3/4"	Polyethylene	Cl160	2006
30	3/4"	Polyethylene	Cl160	2012
1193	Total Service Connections			

Customer Meters Active

Quantity	Size	Manufacturer	Model	Age
1	2"	Neptune	T10	2013
5	1"	Neptune	T10	2018
2	1"	Neptune	T10	2016
5	1"	Neptune	T10	2015
3	1"	Neptune	T10	2014
4	1"	Neptune	T10	2008
4	1"	Neptune	T10	2006
50	5/8"x3/4"	Neptune	T10	2018
50	5/8"x3/4"	Neptune	T10	2017
15	5/8"x3/4"	Neptune	T10	2016
183	5/8"x3/4"	Neptune	T10	2015
49	5/8"x3/4"	Neptune	T10	2014
5	5/8"x3/4"	Neptune	T10	2013
10	5/8"x3/4"	Neptune	T10	2012
50	5/8"x3/4"	Neptune	T10	2008
50	5/8"x3/4"	Neptune	T10	2006
100	5/8"x3/4"	Neptune	T10	2005
50	5/8"x3/4"	Neptune	T10	2004
50	5/8"x3/4"	Neptune	T10	2003
50	5/8"x3/4"	Neptune	T10	2002
100	5/8"x3/4"	Neptune	T10	2001
139	5/8"x3/4"	Badger/Sensus	unknown	1998
975	Total Active Meters			

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

8. Proved the water utility's closest approximate number of service lines and transmission and distribution lines that were made with Blu-Max tubing within its distribution system and the dates they were installed.

Response:

West Carroll does not have any Blu-Max tubing in its system.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

9. State whether the water utility has considered hiring a consulting firm for leak detection rather than using in-house labor, and if not explain why not.

Response:

Carrollton Utilities serves as the primary consultant to West Carroll with regard to leak detection. West Carroll considers the following as evidence that Carrollton Utilities is very qualified to serve as a consultant to West Carroll in this regard:

- Carrollton Utilities operates a water treatment plant that produces 257 million gallons of water per year;
- Carrollton Utilities operates a municipal water distribution system with annual sales of 250 million gallons of water per year and an annual water loss of 3 percent;
- Carrollton Utilities employs a very experienced team of professionals, including:
 - Three graduate engineers, including two professional engineers each with over 25 years of experience in utility operations;
 - A seasoned superintendent responsible for the operations of Carrollton Utilities and West Carroll. He possesses a Class IV Water Treatment Plant License, a Class III Water Distribution License, a Class III Wastewater Treatment Plant License and a Class III Wastewater Collection License. He also has over 20 years of utility experience;
 - Three operators with a Class IV Water Treatment Plant License;
 - Fourteen operators with a Class II or above Water Distribution License.

- The Carrollton Utilities water system and the West Carroll water system are physically connected by two master meters. The personnel, resources, operation and maintenance procedures are very similar, if not identical, for the two distribution systems. The combined water loss for the two systems was 11 percent for calendar year 2018. Therefore, if the Commission evaluated the combined West Carroll and Carrollton Utilities' system as a whole, the Commission would adjudge that the combined system would meet the target water loss percentage.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

10. State whether an employee dedicated to leak detection would be a worthwhile investment for the water utility, and if not state why not.

Response:

Dedicating employees solely to leak detection would be beneficial in regards to finding leaks quicker. However, the question, as posed, appears to inquire as to whether hiring one employee would be a worthwhile investment for West Carroll.

In response to the question of whether adding a single employee dedicated to leak detection would be a worthwhile investment, West Carroll states that a single employee searching for leaks alone would be very limited in what he/she could accomplish. Driving or walking the water mains looking for wet areas could easily be accomplished by one additional person. However, these types of leaks are usually found quickly already. The more difficult leaks that are typical to West Carroll require extensive work by more than one person. Leak detection most often requires a team of people isolating portions of the system with valves and using leak detection meters to narrow and search. More often than not, this is followed by excavation of long sections of water main until the leak is found. Therefore, West Carroll would need to hire three people dedicated to leak detection to be effective at reducing water loss.

The second part of the question is whether hiring additional people would be a worthwhile investment. The annual cost to West Carroll for all unbilled water is approximately \$44,000. The annual cost of hiring three skill full-time employees dedicated solely to

leak detection would be much higher than \$44,000. Furthermore, it isn't reasonable to expect that three employees would be able to eliminate all unbilled water. West Carroll submits that the Commission should consider a water audit to assist in evaluation of reasonable goals for water loss based on the individual characteristics of each water system and to answer the question regarding whether a water system would benefit from hiring additional personnel for leak detection. The water audit program developed by the AWWA and completed by West Carroll (please see response No. 3) calculates a value for the unavoidable annual real losses and compares that value to the actual real losses to arrive at an ILI. This analysis is precisely what must be considered to adequately answer the question as to whether the cost of additional personnel is a worthwhile investment. West Carroll has completed the AWWA audit (please see Response No. 41 to Commission Staff's First Request for Information for a copy of the AWWA audit). That analysis indicates that West Carroll would not benefit from the higher cost of hiring additional personnel dedicated to leak detection.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

11. Refer to the water utility's response to Commission Order of March 12, 2019, Appendix C (March 12 Order), Item 8. Provide a copy of the most recent written and completed inspection report done at the water utility's plant, pump, and storage facilities. If no written and completed inspection report exists, then state in specific detail all tasks performed by the water utility during the water utility's most recent inspection of its plant, pump, and storage facilities.

Response:

Please see attached.

PMD



PREFERRED TANK & TOWER

Maintenance Division, Inc.

**NEW AND PREOWNED TANKS • TANKS RAISED, LOWERED AND MOVED
PAINT • REPAIR • DISMANTLE • INSPECT**



100,000 GALLON ELEVATED WATER TANK

CHRIS ROSE

WEST CARROLL WATER DISTRICT

CARROLLTON, KY

502-732-7055

RSH81760898

10/16/2017

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PHOTO SHOWS FOUNDATION

THE FOUNDATION IS SHOWING SIGNS OF CRACKING/SPALLING AND IS NOT PROPERLY SEALED TO SAFEGUARD FROM WATER PENETRATION AND THE EFFECTS OF THE FREEZE-THAW CYCLE DURING COLD WEATHER. WE RECOMMEND TO HAND TOOL CLEAN FOUNDATION, REPAIR SPALLING/CRACKING AREAS AND APPLY ONE COAT OF SEALER TO EXPOSED AREAS.

THE GRADE LEVEL SURROUNDING THE TANK IS NOT AT THE PROPER HEIGHT TO ALLOW FOR THE AWWA AND NFPA RECOMMENDED FOUNDATION EXPOSURE. WE RECOMMEND CONTRACTING A LOCAL EXCAVATOR TO GRADE CIRCUMFERENCE OF TANK TO EXPOSE A MINIMUM OF SIX INCHES OF FOUNDATION TO CREATE POSITIVE RUN OFF IN ACCORDANCE WITH NFPA 2013 12.3.1 AND AWWA D-100-11 12.6 REQUIREMENTS.



PHOTO SHOWS ANCHOR BOLTS

THE STRUCTURAL INTEGRITY OF THE ANCHOR BOLTS SHOULD BE MAINTAINED TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION AS REQUIRED BY THE AWWA. WE RECOMMEND TO CLEAN AROUND THE ANCHOR BOLTS AND WELD AROUND THE CIRCUMFERENCE OF THE BOLT-TO-NUT AND NUT-TO-BASE CONNECTION TO REINFORCE.



PHOTO SHOWS FOUNDATION

TANK IS NOT PROPERLY GROUNDED ACCORDING TO NFPA 780 4.9.10 AND 4.9.10.1 REQUIREMENTS. WE RECOMMEND TO FURNISH AND INSTALL TWO GROUND CONDUCTORS, STRUCTURES EXCEEDING 250 FEET IN PERIMETER, ARE REQUIRED TO HAVE AN ADDITIONAL CONDUCTOR FOR EVERY 100 FEET OF PERIMETER IN ACCORDANCE WITH NFPA 780 4.9.10 AND 4.9.10.1 REQUIREMENTS.



PHOTO SHOWS RISER/RISER MANWAY

THIS TANK DOES NOT HAVE THE REQUIRED SIGNAGE BY OSHA. WE RECOMMEND TO FURNISH AND INSTALL CONFINED SPACE, FALL PROTECTION EQUIPMENT REQUIRED, AND HOMELAND SECURITY SIGNS ON THE TANK IN ACCORDANCE WITH OSHA US CODE TITLE 42 300i-1, AND THE DEPARTMENT OF HOMELAND SECURITY CODES.

WE RECOMMEND TO FURNISH AND INSTALL A 2" DIAMETER FROST PROOF AND LOCKABLE DRAIN VALVE TO AS CLOSE TO THE BOTTOM OF THE RISER AS POSSIBLE. WE ARE MAKING THIS RECOMMENDATION AS MOST TANK OWNER'S DO NOT HAVE THE MEANS IN PLACE TO EFFECTIVELY DRAIN THEIR TANKS. MOST FACILITIES MUST FOLLOW WATER DRAINAGE REQUIREMENTS THAT COMPLY WITH THEIR FACILITIES STORM WATER PLAN WHICH REQUIRES THE WATER TO BE DIRECTED INTO A STORM DRAIN. THE DRAIN VALVE ALLOWS THE HOOKUP OF A DRAIN LINE SO THE WATER MAY BE DIRECTIONALIZED.



PHOTO SHOWS TANK CONTROLS AND VALVE PIT IN GOOD CONDITION



PHOTO SHOWS EXTERIOR OF TANK

OVERALL, THE EXTERIOR COATING APPEARS TO BE IN GOOD CONDITION. IN ORDER PROMOTE THE LONGEVITY OF THE EXISTING COATING, WE RECOMMEND TO POWER WASH ALL EXTERIOR SURFACES AND TOUCH UP COATING AS NECESSARY.



PHOTO SHOWS OVERFLOW

WE RECOMMEND TO REPLACE SCREEN ON THE EXISTING FLAPPER VALVE TO PREVENT THE INGRESS OF CONTAMINANTS IN ACCORDANCE WITH AWWA D100-11 7.3 AND NFPA 22 2013 14.6 REQUIREMENTS.



PHOTO SHOWS UPWARD VIEW OF LADDER

THE EXTERIOR LADDER DOES NOT HAVE AN ANTI CLIMB DEVICE INSTALLED. WE RECOMMEND TO FURNISH AND INSTALL A LOCKABLE ANTI CLIMB DEVICE ON THE EXTERIOR LADDER TO PREVENT UNAUTHORIZED ACCESS AND VANDALISM.



PHOTO SHOWS STRUTS

WE RECOMMEND RE-ENFORCING THE STRUT ENDS BY WELDING AFTER ADJUSTING WINDAGE AND STAY RODS.



PHOTO SHOWS WINDAGE RODS

THE WINDAGE RODS ARE DESIGNED TO RESIST AND STABILIZE THE TANK STRUCTURE AGAINST WIND AND SEISMIC LOADS COMBINED WITH DEAD AND LIVE LOADS. THE RODS SHOULD WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION. IF THE BRACING REMAINS LOOSE, A SUDDEN COLLAPSE COULD OCCUR. WE RECOMMEND TO ADJUST THE WINDAGE RODS AND RISER STAY RODS TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION, AS REQUIRED BY AWWA D100-11 3.1.4, REQUIREMENTS. THIS SHOULD BE DONE ON AN EMERGENCY BASIS.



PHOTO SHOWS RISER TO BOWL CONNECTION & STAY RODS

WE RECOMMEND TO ADJUST THE RISER RODS TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION, AS REQUIRED BY AWWA.



PHOTO SHOWS UNDERSIDE OF CATWALK IN GOOD CONDITION



PHOTO SHOWS DOWNWARD VIEW OF LADDER IN GOOD CONDITION



PHOTO SHOWS CATWALK OPENING OF LADDER

THE HANDRAIL OPENING IS NOT PROTECTED BY A SWING GATE. WE RECOMMEND TO FURNISH AND INSTALL A SWING GATE IN THE HANDRAIL OPENING IN ACCORDANCE WITH OSHA, AWWA D100-11 3.1.7, AND NFPA 22 2013 8.7.9 REQUIREMENTS.



PHOTO SHOWS CATWALK HANDRAILS

WE RECOMMEND DRILLING ADDITIONAL WEEP HOLES IN THE STRUTS AS NECESSARY TO PREVENT THE PONDING OF WATER.



PHOTO SHOWS CATWALK AND POSTHEAD CONNECTIONS

**TO ENSURE THE STRUCTURAL INTEGRITY OF THE TANK, WE RECOMMEND TO RE-WELD
POST HEAD CONNECTIONS ABOVE THE CATWALK.**



PHOTO SHOWS EXTERIOR OF TANK

AT MINIMUM, WE RECOMMEND TO POWER WASH ALL EXTERIOR SURFACES, PROPERLY PREPARE SURFACE, PRIME, AND APPLY ONE COMPLETE COAT OF ENAMEL. FURTHERMORE, FOR SUPERIOR COLOR, GLOSS RETENTION, AND LONGEVITY OF COATING PERFORMANCE, WE RECOMMEND A FULL COAT OF PRIMER FOLLOWED BY A FINISH COAT OF ACRYLIC OR URETHANE.

TANK IS NOT EQUIPPED WITH SHELL MANWAYS. WE RECOMMEND TO INSTALL TWO 24" SHELL MANWAYS COMPLETE WITH A DAVIT ARM AND GALVANIZED BOLTS AT THE CATWALK LEVEL SPACED AT 180 DEGREES APART IN CONJUNCTION WITH TWO INTERIOR BOWL LADDERS INCLUDING SAFETY CLIMB DEVICES IN ACCORDANCE WITH OSHA, AWWA D100-11 7.4.4, AND NFPA 22 2013 14.7.2 REQUIREMENTS.



PHOTO SHOWS SHELL LADDER IN GOOD CONDITION



PHOTO SHOWS EXTERIOR OVERVIEW OF ROOF

TANK IS NOT EQUIPPED WITH AN OSHA APPROVED HANDRAIL SYSTEM. WE RECOMMEND TO FURNISH AND INSTALL 42" HANDRAILS AROUND THE CIRCUMFERENCE OF THE TANK ROOF IN ACCORDANCE WITH OSHA, AWWA D100-11 3.1.7 AND NFPA 22 2013 8.7.9 REQUIREMENTS.



PHOTO SHOWS ROOF VENT

WE RECOMMEND TO REMOVE AND REPLACE THE NON COMPLIANT ROOF VENT WITH A FROST PROOF/PRESSURE PROOF VENT IN ACCORDANCE WITH AWWA D100-11 7.5, 7.5.1 AND 7.5.2 REQUIREMENTS. ADDITIONALLY, WE RECOMMEND TO FURNISH AND INSTALL A FLANGED NECK/NOZZLE BETWEEN ROOF TOP AND THE NEW ROOF VENT TO ALLOW ATTACHMENT OF A VENTILATION FAN IN ACCORDANCE WITH NFPA 22 2013 4.15.11 REQUIREMENTS TO ALLOW REMOVAL OF THE VENT AND ATTACHMENT OF A FAN TO PROVIDE PROPER AIRFLOW AND QUALITY WHILE WELDING, WORKING, SANDBLASTING AND PAINTING INSIDE THE TANK AS WELL AS TO ALLOW PROPER VENTILATION VIA A FAN FOR CURING OF THE INTERIOR COATING.



PHOTO SHOWS CLOSED ROOF HATCH

WE RECOMMEND TO REPLACE THE EXISTING ROOF HATCH WITH A 24" X 24" SQUARE HATCH IN ACCORDANCE WITH AWWA D100-11 5.4.3.1 AND NFPA 22 2013 5.7.3.1 CODE REQUIREMENTS.



PHOTO SHOWS OPEN VIEW OF ROOF HATCH



PHOTO SHOWS SECONDARY ROOF HATCH CLOSED

WE RECOMMEND TO REPLACE THE EXISTING SECONDARY ROOF HATCH WITH A 24" X 24" SQUARE ROOF HATCH IN ACCORDANCE WITH AWWA D100-11 5.4.3.1 AND NFPA 22 2013 5.7.3.1 CODE REQUIREMENTS.

WE RECOMMEND TO FURNISH AND INSTALL A SECONDARY INTERIOR AND AN EXTERIOR LADDER INCLUDING SAFETY CLIMB DEVICES AND AN ANTI CLIMB DEVICE IN CONJUNCTION WITH THE INSTALLATION OF A SECONDARY 24" SQUARE ROOF HATCH 180 DEGREES FROM THE PRIMARY ROOF HATCH IN ACCORDANCE WITH OSHA, AWWA D100-11 5.4.2.5 AND NFPA 22 2013 5.7.4 REQUIREMENTS.



PHOTO SHOWS INTERIOR OVERVIEW OF ROOF

**WE RECOMMEND TO CAULK INTERIOR LAPPED ROOF JOINTS AFTER PAINTING TO PREVENT
PREMATURE FAILURE OF COATING.**



PHOTO SHOWS INTERIOR VIEW OF WEIR BOX IN GOOD CONDITION



PHOTO SHOWS INTERIOR LADDER IN GOOD CONDITION



PHOTO SHOWS RISER LADDER & RISER OPENING

THERE ISN'T A SAFETY GRATE PROTECTING THE RISER OPENING. WE RECOMMEND TO FURNISH AND INSTALL SAFETY GRATE AT RISER OPENING IN ACCORDANCE WITH OSHA REQUIREMENTS.

WE RECOMMEND TO FURNISH AND INSTALL AN OSHA APPROVED HANDRAIL SYSTEM AROUND RISER OPENING.



PHOTO SHOWS PAINTERS RING/INTERIOR OF TANK

OVERALL, THE INTERIOR COATING APPEARS TO BE IN GOOD CONDITION. IN ORDER PROMOTE THE LONGEVITY OF THE EXISTING COATING, WE RECOMMEND TO POWER WASH ALL INTERIOR SURFACES AND TOUCH UP COATING AS NECESSARY.

CATHODIC PROTECTION IS AN EFFECTIVE WAY TO HELP PROTECT YOUR TANK FROM THE EFFECTS OF CORROSION. WE RECOMMEND TO FURNISH AND INSTALL A PASSIVE CATHODIC PROTECTION SYSTEM AS A COST EFFECTIVE AND LOW MAINTENANCE MEANS OF FURTHER PROTECTING AND EXTENDING THE SERVICE LIFE OF YOUR TANK.

AS PREVIOUSLY MENTIONED, TANK IS NOT EQUIPPED WITH SHELL MANWAYS. WE RECOMMEND TO INSTALL TWO 24" SHELL MANWAYS COMPLETE WITH A DAVIT ARM AND GALVANIZED BOLTS AT THE CATWALK LEVEL SPACED AT 180 DEGREES APART IN CONJUNCTION WITH TWO INTERIOR BOWL LADDERS INCLUDING SAFETY CLIMB DEVICES IN ACCORDANCE WITH OSHA, AWWA D100-11 7.4.4, AND NFPA 22 2013 14.7.2 REQUIREMENTS.

10/16/2017 11:28:23 AM

H: 297.7 °
D: 16.81 ft
Temp: 63.2 °F

PHOTO SHOWS SEDIMENT ON TANK FLOOR

DUE TO SEDIMENT ACCUMULATION ON TANK BOTTOM WE RECOMMEND A CLEAN OUT OF THIS TANK, THIS ALLOWS US TO FURTHER INSPECT THE BOTTOM OF THE TANK.

West Carroll Water District

Booster Station Inspection Form

HYDRANT INFORMATION	
Station Name	Kings Ridge Booster
Number, size, gpm	2-10hp, 60gpm
Date of Construction	2014
Date of Inspection	7-31-18
Cu Inspectors Names	Ch FT
Station Material Type	Above ground, fiberglass shell

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Visible signs of wear and tear?	
<input checked="" type="checkbox"/>	Is station free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is station free of leaks, cracks, physical damage and corrosion?	
<input checked="" type="checkbox"/>	Does station site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of station?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all flanges, motors, couplings and bolts tightened properly?	
<input checked="" type="checkbox"/>	Are there indications of seal leakage at pump?	
<input checked="" type="checkbox"/>	Is there any condensation inside the station?	
<input checked="" type="checkbox"/>	Are pumps operated automatically?	
<input checked="" type="checkbox"/>	Does both pumps run at the same time?	
<input checked="" type="checkbox"/>	Is station on scada?	
<input checked="" type="checkbox"/>	Any distortion in station bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any station repair is needed please comment on that as well and notify your supervisor.

West Carroll Water District

Booster Station Inspection Form

HYDRANT INFORMATION	
Station Name	Gilgal Booster
Number, size, gpm	2-7.5hp, 55gpm
Date of Construction	2014
Date of Inspection	7-30-18
Cu Inspectors Names	CR FT BS JM
Station Material Type	Above ground, fiberglass shell

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Visible signs of wear and tear?	
<input checked="" type="checkbox"/>	Is station free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is station free of leaks, cracks, physical damage and corrosion?	
<input checked="" type="checkbox"/>	Does station site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of station?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all flanges, motors, couplings and bolts tightened properly?	
<input checked="" type="checkbox"/>	Are there indications of seal leakage at pump?	
<input checked="" type="checkbox"/>	Is there any condensation inside the station?	
<input checked="" type="checkbox"/>	Are pumps operated automatically?	
<input checked="" type="checkbox"/>	Does both pumps run at the same time?	
<input checked="" type="checkbox"/>	Is station on scada?	
<input checked="" type="checkbox"/>	Any distortion in station bottom, shell, roof or other parts?	
<input type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any station repair is needed please comment on that as well and notify your supervisor.

West Carroll Water District

Booster Station Inspection Form

HYDRANT INFORMATION	
Station Name	Moundhill Booster
Number, size, gpm	2-20hp, 150gpm
Date of Construction	1994
Date of Inspection	7-31-18
Cu Inspectors Names	CR FT
Station Material Type	Welded steel underground

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Visible signs of wear and tear?	
<input checked="" type="checkbox"/>	Is station free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is station free of leaks, cracks, physical damage and corrosion?	
<input checked="" type="checkbox"/>	Does station site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of station?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all flanges, motors, couplings and bolts tightened properly?	
<input checked="" type="checkbox"/>	Are there indications of seal leakage at pump?	
<input checked="" type="checkbox"/>	Is there any condensation inside the station?	
<input checked="" type="checkbox"/>	Are pumps operated automatically?	
<input checked="" type="checkbox"/>	Does both pumps run at the same time?	
<input checked="" type="checkbox"/>	Is station on scada?	
<input checked="" type="checkbox"/>	Any distortion in station bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any station repair is needed please comment on that as well and notify your supervisor.

West Carroll Water District

Booster Station Inspection Form

HYDRANT INFORMATION	
Station Name	Moundhill Bladder Booster
Number, size, gpm	2-3hp, 50gpm
Date of Construction	2006
Date of Inspection	7.31.18
Cu Inspectors Names	ck
Station Material Type	Stick built above ground

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Visible signs of wear and tear?	
<input checked="" type="checkbox"/>	Is station free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is station free of leaks, cracks, physical damage and corrosion?	
<input checked="" type="checkbox"/>	Does station site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of station?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all flanges, motors, couplings and bolts tightened properly?	
<input checked="" type="checkbox"/>	Are there indications of seal leakage at pump?	
<input checked="" type="checkbox"/>	Is there any condensation inside the station?	
<input checked="" type="checkbox"/>	Are pumps operated automatically?	
<input checked="" type="checkbox"/>	Does both pumps run at the same time?	
<input checked="" type="checkbox"/>	Is station on scada?	
<input checked="" type="checkbox"/>	Any distortion in station bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any station repair is needed please comment on that as well and notify your supervisor.

West Carroll Water District

Booster Station Inspection Form

HYDRANT INFORMATION	
Station Name	Hardy Creek Booster
Number, size, gpm	2-10hp, 38gpm
Date of Construction	1976
Date of Inspection	7.31.18
Cu Inspectors Names	CR FT TA
Station Material Type	Welded steel underground

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Visible signs of wear and tear?	
<input checked="" type="checkbox"/>	Is station free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is station free of leaks, cracks, physical damage and corrosion?	
<input type="checkbox"/>	Does station site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of station?	
<input type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all flanges, motors, couplings and bolts tightened properly?	
<input checked="" type="checkbox"/>	Are there indications of seal leakage at pump?	
<input checked="" type="checkbox"/>	Is there any condensation inside the station?	
<input checked="" type="checkbox"/>	Are pumps operated automatically?	
<input checked="" type="checkbox"/>	Does both pumps run at the same time?	
<input checked="" type="checkbox"/>	Is station on scada?	
<input type="checkbox"/>	Any distortion in station bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any station repair is needed please comment on that as well and notify your supervisor.

Building Inspection

Building Type: () Concrete () Metal (✓) Frame Construction

Building Purpose: Mandhill Bladder Station

Location: Mandhill rd.

Exterior:

1. Structure condition: (✓) Good () Fair () Poor

2. Roof Type: () Flat (✓) Sloped

Roof Material: Shingle

a. Does roof show any signs of leakage? () Yes (✓) No

b. Is the roof guttered? () Yes (✓) No

3. Does structure contain any windows? () Yes (✓) No

a. Are any windows broken? () Yes (✓) No

b. Are windows secured with locks or bars? () Yes (✓) No

4. Door type: () Wood (✓) Metal

a. Does door have adequate security: (✓) Yes () No

b. Are doors in good shape? (✓) Yes () No

c. Would door prevent general public from entry? (✓) Yes () No

5. Does structure need painting: () Yes () No (✓) N/A vinyl siding

6. Does structure meet general safety codes? (✓) Yes () No

7. Does structure have all wiring in conduit? (✓) Yes () No

8. Does structure have a fence? () Yes (✓) No

9. Is access road to structure adequate? (✓) Yes () No

10. Does structure have a sign identifying ownership and who to contact in case of an emergency? (✓) Yes () No

7-31-18 CR

PMD



PREFERRED TANK & TOWER

Maintenance Division, Inc.

**NEW AND PREOWNED TANKS • TANKS RAISED, LOWERED AND MOVED
PAINT • REPAIR • DISMANTLE • INSPECT**



50,000 GALLON ELEVATED WATER TANK

CHRIS ROSE

WEST CARROLL WATER DISTRICT

CARROLLTON, KY

502-732-7055

RSH81760898

10/16/2017

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PHOTO SHOWS FOUNDATION

THE FOUNDATION IS SHOWING SIGNS OF CRACKING/SPALLING AND IS NOT PROPERLY SEALED TO SAFEGUARD FROM WATER PENETRATION AND THE EFFECTS OF THE FREEZE-THAW CYCLE DURING COLD WEATHER. WE RECOMMEND TO HAND TOOL CLEAN FOUNDATION, REPAIR SPALLING/CRACKING AREAS AND APPLY ONE COAT OF SEALER TO EXPOSED AREAS.

THE GRADE LEVEL SURROUNDING THE TANK IS NOT AT THE PROPER HEIGHT TO ALLOW FOR THE AWWA AND NFPA RECOMMENDED FOUNDATION EXPOSURE. WE RECOMMEND CONTRACTING A LOCAL EXCAVATOR TO GRADE CIRCUMFERENCE OF TANK TO EXPOSE A MINIMUM OF SIX INCHES OF FOUNDATION TO CREATE POSITIVE RUN OFF IN ACCORDANCE WITH NFPA 2013 12.3.1 AND AWWA D-100-11 12.6 REQUIREMENTS.

TANK IS NOT PROPERLY GROUNDED ACCORDING TO NFPA 780 4.9.10 AND 4.9.10.1 REQUIREMENTS. WE RECOMMEND TO FURNISH AND INSTALL TWO GROUND CONDUCTORS, STRUCTURES EXCEEDING 250 FEET IN PERIMETER, ARE REQUIRED TO HAVE AN ADDITIONAL CONDUCTOR FOR EVERY 100 FEET OF PERIMETER IN ACCORDANCE WITH NFPA 780 4.9.10 AND 4.9.10.1 REQUIREMENTS.



PHOTO SHOWS ANCHOR BOLTS

THE STRUCTURAL INTEGRITY OF THE ANCHOR BOLTS SHOULD BE MAINTAINED TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION AS REQUIRED BY THE AWWA. WE RECOMMEND TO CLEAN AROUND THE ANCHOR BOLTS AND WELD AROUND THE CIRCUMFERENCE OF THE BOLT-TO-NUT AND NUT-TO-BASE CONNECTION TO REINFORCE.



PHOTO SHOWS RISER FOUNDATION

THE RISER FOUNDATION HAS AREAS WHERE THE BOTTOM OF THE FOUNDATION IS EXPOSED AND IS ALLOWING THE INGRESS OF WATER. WE RECOMMEND TO BACK FILL THESE AREAS AS NEEDED.



PHOTO SHOWS RISER/RISER MANWAY

THIS TANK DOES NOT HAVE THE REQUIRED SIGNAGE BY OSHA. WE RECOMMEND TO FURNISH AND INSTALL CONFINED SPACE, FALL PROTECTION EQUIPMENT REQUIRED, AND HOMELAND SECURITY SIGNS ON THE TANK IN ACCORDANCE WITH OSHA US CODE TITLE 42 300i-1, AND THE DEPARTMENT OF HOMELAND SECURITY CODES.

THE EXISTING MANWAY BOLTS ARE SHOWING SIGNS OF CORROSION, WHICH CAN LEAD TO BOLT FAILURE AND STAINING OF FINISHED SURFACES. WE RECOMMEND TO REPLACE EXISTING BOLTS WITH GALVANIZED BOLTS AS A PREVENTATIVE MEASURE TO ENSURE PROPER FASTENER OPERATION AND TO SAFE GUARD EXTERIOR COATING.

WE RECOMMEND TO FURNISH AND INSTALL A 2" DIAMETER FROST PROOF AND LOCKABLE DRAIN VALVE TO AS CLOSE TO THE BOTTOM OF THE RISER AS POSSIBLE. WE ARE MAKING THIS RECOMMENDATION AS MOST TANK OWNER'S DO NOT HAVE THE MEANS IN PLACE TO EFFECTIVELY DRAIN THEIR TANKS. MOST FACILITIES MUST FOLLOW WATER DRAINAGE REQUIREMENTS THAT COMPLY WITH THEIR FACILITIES STORM WATER PLAN WHICH REQUIRES THE WATER TO BE DIRECTED INTO A STORM DRAIN. THE DRAIN VALVE ALLOWS THE HOOKUP OF A DRAIN LINE SO THE WATER MAY BE DIRECTIONALIZED.



PHOTO SHOWS EXTERIOR OF TANK

AT MINIMUM, WE RECOMMEND TO POWER WASH ALL EXTERIOR SURFACES, PROPERLY PREPARE SURFACE, PRIME, AND APPLY ONE COMPLETE COAT OF ENAMEL. FURTHERMORE, FOR SUPERIOR COLOR, GLOSS RETENTION, AND LONGEVITY OF COATING PERFORMANCE, WE RECOMMEND A FULL COAT OF PRIMER FOLLOWED BY A FINISH COAT OF ACRYLIC OR URETHANE.



PHOTO SHOWS OVERFLOW

WE RECOMMEND TO FURNISH AND INSTALL A FLAPPER VALVE ON EXISTING OVERFLOW IN ACCORDANCE WITH AWWA D103-09 7.3 AND NFPA 22 2013 14.6 CODE REQUIREMENTS.



PHOTO SHOWS UPWARD VIEW OF LADDER IN GOOD CONDITION



PHOTO SHOWS STRUTS IN GOOD CONDITION



PHOTO SHOWS WINDAGE RODS

THE WINDAGE RODS ARE DESIGNED TO RESIST AND STABILIZE THE TANK STRUCTURE AGAINST WIND AND SEISMIC LOADS COMBINED WITH DEAD AND LIVE LOADS. THE RODS SHOULD WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION. IF THE BRACING REMAINS LOOSE, A SUDDEN COLLAPSE COULD OCCUR. WE RECOMMEND TO ADJUST THE WINDAGE RODS AND RISER STAY RODS TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION, AS REQUIRED BY AWWA D100-11 3.1.4, REQUIREMENTS. THIS SHOULD BE DONE ON AN EMERGENCY BASIS.



PHOTO SHOWS RISER TO BOWL CONNECTION/STAY RODS

WE RECOMMEND TO ADJUST THE RISER RODS TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION, AS REQUIRED BY AWWA.



PHOTO SHOWS UNDERSIDE OF CATWALK IN GOOD CONDITION



PHOTO SHOWS DOWNWARD VIEW OF LADDER



PHOTO SHOWS CATWALK OPENING OF LADDER

THE HANDRAIL OPENING IS NOT PROTECTED BY A SWING GATE. WE RECOMMEND TO FURNISH AND INSTALL A SWING GATE IN THE HANDRAIL OPENING IN ACCORDANCE WITH OSHA, AWWA D100-11 3.1.7, AND NFPA 22 2013 8.7.9 REQUIREMENTS.



PHOTO SHOWS CATWALK HANDRAILS

THERE IS EVIDENCE THAT WATER IS PONDING ON THE CATWALK. WE RECOMMEND DRILLING ADDITIONAL WEEP HOLES IN THE CATWALK AS NECESSARY TO PREVENT THE PONDING OF WATER.

WE RECOMMEND TO WELD SPLICE PLATES IN BETWEEN CATWALK SECTIONS TO IMPROVE STRUCTURAL INTEGRITY OF CATWALK.



PHOTO SHOWS CATWALK AND POSTHEAD CONNECTIONS

**TO ENSURE THE STRUCTURAL INTEGRITY OF THE TANK, WE RECOMMEND TO RE-WELD
POST HEAD CONNECTIONS ABOVE THE CATWALK.**



PHOTO SHOWS EXTERIOR OF TANK

AT MINIMUM, WE RECOMMEND TO POWER WASH ALL EXTERIOR SURFACES, PROPERLY PREPARE SURFACE, PRIME, AND APPLY ONE COMPLETE COAT OF ENAMEL. FURTHERMORE, FOR SUPERIOR COLOR, GLOSS RETENTION, AND LONGEVITY OF COATING PERFORMANCE, WE RECOMMEND A FULL COAT OF PRIMER FOLLOWED BY A FINISH COAT OF ACRYLIC OR URETHANE.



PHOTO SHOWS LIQUID LEVEL INDICATOR

THE LIQUID LEVEL INDICATOR IS BROKEN. WE RECOMMEND TO REPAIR, CLEAN, AND LUBRICATE THE EXISTING LIQUID LEVEL INDICATOR AS NECESSARY IN ACCORDANCE WITH NFPA 22 2013 14.1.8 REQUIREMENTS.



PHOTO SHOWS SHELL MANWAY

THIS TANK DOES NOT HAVE THE REQUIRED SIGNAGE BY OSHA. WE RECOMMEND TO FURNISH AND INSTALL CONFINED SPACE, FALL PROTECTION EQUIPMENT REQUIRED, AND HOMELAND SECURITY SIGNS ON THE TANK IN ACCORDANCE WITH OSHA US CODE TITLE 42 300i-1, AND THE DEPARTMENT OF HOMELAND SECURITY CODES.

THE EXISTING MANWAY BOLTS ARE SHOWING SIGNS OF CORROSION, WHICH CAN LEAD TO BOLT FAILURE AND STAINING OF FINISHED SURFACES. WE RECOMMEND TO REPLACE EXISTING BOLTS WITH GALVANIZED BOLTS AS A PREVENTATIVE MEASURE TO ENSURE PROPER FASTENER OPERATION AND TO SAFE GUARD EXTERIOR COATING.

WE RECOMMEND TO FURNISH AND INSTALL A SECONDARY 24" MANWAY COMPLETE WITH A DAVIT ARM AND GALVANIZED BOLTS AT THE CATWALK LEVEL IN ACCORDANCE WITH OSHA, AWWA D100-11, AND NFPA 22 2013 14.7.2 REQUIREMENTS.

WE RECOMMEND TO FURNISH AND INSTALL AN INTERIOR BOWL LADDER IN CONJUNCTION WITH THE INSTALLATION OF THE SECONDARY CATWALK MANWAY WITH A SAFETY CLIMB DEVICE IN ACCORDANCE WITH OSHA, AWWA D100-11 7.4.2.4 AND NFPA 22 2013 5.7.4 REQUIREMENTS.



PHOTO SHOWS SHELL LADDER

THE LADDER RUNGS ARE NOT SKID RESISTANT. WE RECOMMEND TO APPLY A SKID RESISTANT COATING TO THE LADDER RUNGS IN ACCORDANCE WITH OSHA REQUIREMENTS.



PHOTO SHOWS EXTERIOR OVERVIEW OF ROOF

TANK IS NOT EQUIPPED WITH AN OSHA APPROVED HANDRAIL SYSTEM. WE RECOMMEND TO FURNISH AND INSTALL 42" HANDRAILS AROUND THE CIRCUMFERENCE OF THE TANK ROOF IN ACCORDANCE WITH OSHA, AWWA D100-11 3.1.7, AND NFPA 22 2013 8.7.9 REQUIREMENTS.

THERE IS EVIDENCE OF BIRD ROOSTING AND THERE FECAL MATTER WILL DAMAGE EXTERIOR COATINGS AND CAN CONTAMINATE THE CONTENTS OF A WATER TANK. WE RECOMMEND TO FURNISH AND APPLY BIRD X TO THE ROOF TO REPEL BIRDS FROM THE TANK.



PHOTO SHOWS ROOF VENT

WE RECOMMEND TO REMOVE AND REPLACE THE NON COMPLIANT ROOF VENT WITH A FROST PROOF/PRESSURE PROOF VENT IN ACCORDANCE WITH AWWA D100-11 7.5, 7.5.1 AND 7.5.2 REQUIREMENTS. ADDITIONALLY, WE RECOMMEND TO FURNISH AND INSTALL A FLANGED NECK/NOZZLE BETWEEN ROOF TOP AND THE NEW ROOF VENT TO ALLOW ATTACHMENT OF A VENTILATION FAN IN ACCORDANCE WITH NFPA 22 2013 4.15.11 REQUIREMENTS TO ALLOW REMOVAL OF THE VENT AND ATTACHMENT OF A FAN TO PROVIDE PROPER AIRFLOW AND QUALITY WHILE WELDING, WORKING, SANDBLASTING AND PAINTING INSIDE THE TANK AS WELL AS TO ALLOW PROPER VENTILATION VIA A FAN FOR CURING OF THE INTERIOR COATING.



PHOTO SHOWS CLOSED ROOF HATCH

WE RECOMMEND TO REPLACE THE EXISTING ROOF HATCH WITH A 24" X 24" SQUARE HATCH IN ACCORDANCE WITH AWWA D100-11 5.4.3.1, AND NFPA 22 2013 5.7.3.1 REQUIREMENTS.



PHOTO SHOWS OPEN VIEW OF ROOF HATCH



PHOTO SHOWS SECONDARY ROOF HATCH CLOSED

WE RECOMMEND TO REPLACE THE EXISTING SECONDARY ROOF HATCH WITH A 24" X 24" SQUARE ROOF HATCH IN ACCORDANCE WITH AWWA D100-11 5.4.3.1, AND NFPA 22 2013 5.7.3.1 REQUIREMENTS.



PHOTO SHOWS INTERIOR OVERVIEW OF ROOF

WE RECOMMEND TO CAULK INTERIOR LAPPED ROOF JOINTS AFTER PAINTING TO PREVENT PREMATURE FAILURE OF COATING.



PHOTO SHOWS INTERIOR VIEW OF WEIR BOX IN GOOD CONDITION



PHOTO SHOWS INTERIOR LADDER IN GOOD CONDITION



PHOTO SHOWS RISER LADDER/RISER OPENING

THERE ISN'T A SAFETY GRATE PROTECTING THE RISER OPENING. WE RECOMMEND TO FURNISH AND INSTALL SAFETY GRATE AT RISER OPENING IN ACCORDANCE WITH OSHA REQUIREMENTS.

WE RECOMMEND TO FURNISH AND INSTALL AN OSHA APPROVED HANDRAIL SYSTEM AROUND RISER OPENING.

10/16/2017 4:18:08 PM



H: 226.5 °
D: 0.13 ft
Temp: 67.4 °F

PHOTO SHOWS LIQUID LEVEL FLOAT

LIQUID LEVEL INDICATOR IS IN NEED OF PREVENTIVE MAINTENANCE. WE RECOMMEND TO CLEAN AND LUBRICATE ALL MOVING PARTS OF THE EXISTING LIQUID LEVEL INDICATOR IN ACCORDANCE WITH NFPA 22 2013 14.1.8 REQUIREMENTS.



PHOTO SHOWS MANWAY

THE BOWL LADDER IS NOT EQUIPPED WITH A SAFETY CLIMB DEVICE. THIS IS AN OSHA VIOLATION. WE RECOMMEND TO FURNISH AND INSTALL A SAFETY CLIMB DEVICE ON BOWL LADDER IN ACCORDANCE WITH OSHA REQUIREMENTS.

CATHODIC PROTECTION IS AN EFFECTIVE WAY TO HELP PROTECT YOUR TANK FROM THE EFFECTS OF CORROSION. WE RECOMMEND TO FURNISH AND INSTALL A PASSIVE CATHODIC PROTECTION SYSTEM AS A COST EFFECTIVE AND LOW MAINTENANCE MEANS OF FURTHER PROTECTING AND EXTENDING THE SERVICE LIFE OF YOUR TANK.



PHOTO SHOWS PAINTERS RING/INTERIOR OF TANK

OVERALL, THE INTERIOR COATING APPEARS TO BE IN GOOD CONDITION. IN ORDER PROMOTE THE LONGEVITY OF THE EXISTING COATING, WE RECOMMEND TO POWER WASH ALL INTERIOR SURFACES AND TOUCH UP COATING AS NECESSARY.

PITTING IS THE RESULT OF THE CORROSION OF THE TANK SHELL THAT DIMINISHES THE THICKNESS AND STRENGTH OF THE TANK SHELL. WE RECOMMEND TO INSTALL 12" X 12" X 3/16" PATCH PLATES OVER AREAS WHERE MULTIPLE PITS ARE IN AN AREA, WELD ISOLATED PITS THAT ARE 1/8" DEEP OR DEEPER, SEAM SEAL THE SHALLOW PITS WITH SEAM SEALER, AND TO REPAIR WELD SEAMS BY WELDING.



PHOTO SHOWS SEDIMENT ON TANK FLOOR

DUE TO SEDIMENT ACCUMULATION ON TANK BOTTOM WE RECOMMEND A CLEAN OUT OF THIS TANK, THIS ALLOWS US TO FURTHER INSPECT THE BOTTOM OF THE TANK.

PMD



PREFERRED TANK & TOWER

Maintenance Division, Inc.

**NEW AND PREOWNED TANKS • TANKS RAISED, LOWERED AND MOVED
PAINT • REPAIR • DISMANTLE • INSPECT**



110,000 GALLON GROUND STORAGE TANK

CHRIS ROSE

WEST CARROLL WATER DISTRICT

CARROLLTON, KY

502-732-7055

RSH81760898

10/16/2017

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PHOTO SHOWS FOUNDATION

THE FOUNDATION IS SHOWING SIGNS OF CRACKING/SPALLING AND IS NOT PROPERLY SEALED TO SAFEGUARD FROM WATER PENETRATION AND THE EFFECTS OF THE FREEZE-THAW CYCLE DURING COLD WEATHER. WE RECOMMEND TO HAND TOOL CLEAN FOUNDATION, REPAIR SPALLING/CRACKING AREAS AND APPLY ONE COAT OF SEALER TO EXPOSED AREAS.

THE AREA BETWEEN THE FOUNDATION AND THE CHIME IS NOT PROPERLY SEALED. WE RECOMMEND TO CAULK BETWEEN FOUNDATION AND CHIME TO PREVENT INGRESS OF WATER UNDER TANK BOTTOM IN ACCORDANCE WITH NFPA 22 2013.12.2.1.2 REQUIREMENTS.

THE GRADE LEVEL SURROUNDING THE TANK IS NOT AT THE PROPER HEIGHT TO ALLOW FOR THE AWWA AND NFPA RECOMMENDED FOUNDATION EXPOSURE. WE RECOMMEND CONTRACTING A LOCAL EXCAVATOR TO GRADE CIRCUMFERENCE OF TANK TO EXPOSE A MINIMUM OF SIX INCHES OF FOUNDATION TO CREATE POSITIVE RUN OFF IN ACCORDANCE WITH NFPA 22 2013 12.3.1. AND AWWA D100-11 12.6 REQUIREMENTS.

Maintenance Division, Inc.



PHOTO SHOWS FOUNDATION

THE STRUCTURAL INTEGRITY OF THE ANCHOR BOLTS SHOULD BE MAINTAINED TO WITHSTAND 100 MPH WINDS BLOWING FROM ANY DIRECTION AS REQUIRED BY THE AWWA. WE RECOMMEND TO CLEAN AROUND THE ANCHOR BOLTS AND WELD AROUND THE CIRCUMFERENCE OF THE BOLT-TO-NUT AND NUT-TO-BASE CONNECTION TO REINFORCE.

TANK IS NOT PROPERLY GROUNDED ACCORDING TO NFPA 780 4.9.10 and 4.9.10.1 REQUIREMENTS. WE RECOMMEND TO FURNISH AND INSTALL TWO GROUND CONDUCTORS, STRUCTURES EXCEEDING 250 FEET IN PERIMETER, ARE REQUIRED TO HAVE AN ADDITIONAL CONDUCTOR FOR EVERY 100 FEET OF PERIMETER IN ACCORDANCE WITH NFPA 780 4.9.10 and 4.9.10.1 REQUIREMENTS.

CORROSION CONTROL IS AN ESSENTIAL PART OF THE MAINTENANCE AND LONGEVITY OF WATER TANKS. WE RECOMMEND TO FURNISH AND INSTALL A RADIAL CATHODIC PROTECTION SYSTEM TO ACT AS A PREVENTATIVE MEASURE CORROSION AGAINST THE UNDERSIDE OF TANK FLOOR.



PHOTO SHOWS MANWAY

THIS TANK DOES NOT HAVE THE REQUIRED SIGNAGE. WE RECOMMEND TO FURNISH AND INSTALL CONFINED SPACE, FALL PROTECTION EQUIPMENT REQUIRED, AND HOMELAND SECURITY SIGNS ON THE TANK IN ACCORDANCE WITH OSHA US CODE TITLE 42, AND THE DEPARTMENT OF HOMELAND SECURITY CODES.

THE EXISTING MANWAY BOLTS ARE SHOWING SIGNS OF CORROSION, WHICH CAN LEAD TO BOLT FAILURE AND STAINING OF FINISHED SURFACES. WE RECOMMEND TO REPLACE EXISTING BOLTS WITH GALVANIZED BOLTS AS A PREVENTATIVE MEASURE TO ENSURE PROPER FASTENER OPERATION AND TO SAFE GUARD EXTERIOR COATING.



PHOTO SHOWS SECONDARY MANWAY

THIS TANK DOES NOT HAVE THE REQUIRED SIGNAGE. WE RECOMMEND TO FURNISH AND INSTALL CONFINED SPACE, FALL PROTECTION EQUIPMENT REQUIRED, AND HOMELAND SECURITY SIGNS ON THE TANK IN ACCORDANCE WITH OSHA US CODE TITLE 42, AND THE DEPARTMENT OF HOMELAND SECURITY CODES.

THE EXISTING MANWAY BOLTS ARE SHOWING SIGNS OF CORROSION, WHICH CAN LEAD TO BOLT FAILURE AND STAINING OF FINISHED SURFACES. WE RECOMMEND TO REPLACE EXISTING BOLTS WITH GALVANIZED BOLTS AS A PREVENTATIVE MEASURE TO ENSURE PROPER FASTENER OPERATION AND TO SAFE GUARD EXTERIOR COATING.



PHOTO SHOWS LIQUID LEVEL INDICATOR

THE LIQUID LEVEL INDICATOR IS BROKEN. WE RECOMMEND TO REPAIR, CLEAN, AND LUBRICATE THE EXISTING LIQUID LEVEL INDICATOR AS NECESSARY IN ACCORDANCE WITH NFPA 22 2013 14.1.8 REQUIREMENTS.



PHOTO SHOWS OVERFLOW

WE RECOMMEND TO FURNISH AND INSTALL A FLAPPER VALVE ON EXISTING OVERFLOW IN ACCORDANCE WITH AWWA D103-09 7.3 AND NFPA 22 2013 14.6 CODE REQUIREMENTS.



PHOTO SHOWS EXTERIOR SHELL CONDITION

AT MINIMUM, WE RECOMMEND TO POWER WASH ALL EXTERIOR SURFACES, PROPERLY PREPARE SURFACE, PRIME, AND APPLY ONE COMPLETE COAT OF ENAMEL. FURTHERMORE, FOR SUPERIOR COLOR, GLOSS RETENTION, AND LONGEVITY OF COATING PERFORMANCE, WE RECOMMEND A FULL COAT OF PRIMER FOLLOWED BY A FINISH COAT OF ACRYLIC OR URETHANE.



PHOTO SHOWS UPWARD VIEW OF LADDER

WE RECOMMEND TO REPLACE THE RAIL TYPE SAFETY CLIMB DEVICE WITH A CABLE TYPE SAFETY CLIMB IN ACCORDANCE WITH OSHA REQUIREMENTS.

THE EXTERIOR LADDER DOES NOT HAVE AN ANTI CLIMB DEVICE INSTALLED. WE RECOMMEND TO FURNISH AND INSTALL A LOCKABLE ANTI CLIMB DEVICE ON THE EXTERIOR LADDER TO PREVENT UNAUTHORIZED ACCESS AND VANDALISM.



PHOTO SHOWS DOWNWARD VIEW OF LADDER

AS PREVIOUSLY MENTIONED, WE RECOMMEND TO REPLACE THE RAIL TYPE SAFETY CLIMB DEVICE WITH A CABLE TYPE SAFETY CLIMB IN ACCORDANCE WITH OSHA REQUIREMENTS.



PHOTO SHOWS OPENING OF LADDER

THE LADDER OPENING IS NOT PROTECTED BY A SWING GATE. WE RECOMMEND TO FURNISH AND INSTALL A SWING GATE IN THE HANDRAIL OPENING IN ACCORDANCE WITH OSHA, AWWA D100-11 3.1.7 AND NFPA 22 2013 8.7.9 REQUIREMENTS.



PHOTO SHOWS ROOF OVERVIEW

TANK IS NOT EQUIPPED WITH AN OSHA APPROVED HANDRAIL SYSTEM. WE RECOMMEND TO FURNISH AND INSTALL 42" HANDRAILS AROUND THE CIRCUMFERENCE OF THE TANK ROOF IN ACCORDANCE WITH OSHA, AWWA D100-11 3.1.7 AND NFPA 22 2013 8.7.9 REQUIREMENTS.

THE ROOF LADDER IS NOT EQUIPPED WITH A SAFETY CLIMB DEVICE. WE RECOMMEND TO FURNISH AND INSTALL A SAFETY CLIMB DEVICE ON EXTERIOR ROOF LADDER IN ACCORDANCE WITH OSHA REQUIREMENTS.



PHOTO SHOWS ROOF VENT

WE RECOMMEND TO REMOVE AND REPLACE THE NON COMPLIANT ROOF VENT WITH A FROST PROOF/PRESSURE PROOF VENT IN ACCORDANCE WITH AWWA D100-11 7.5, 7.5.1 AND 7.5.2 REQUIREMENTS.



PHOTO SHOWS PRIMARY ROOF HATCH

TANK ROOF IS NOT EQUIPPED WITH A SECONDARY OSHA APPROVED ROOF HATCH. WE RECOMMEND TO FURNISH AND INSTALL A SECONDARY 24" SQUARE ROOF HATCH 180 DEGREES FROM THE PRIMARY ROOF HATCH IN ACCORDANCE WITH AWWA D100-11 5.4.3.1 AND NFPA 22 2013 5.7.3 REQUIREMENTS.

WE RECOMMEND TO FURNISH AND INSTALL A SECONDARY INTERIOR AND AN EXTERIOR LADDER INCLUDING SAFETY CLIMB DEVICES AND AN ANTI CLIMB DEVICE IN CONJUNCTION WITH THE INSTALLATION OF A SECONDARY 24" SQUARE ROOF HATCH 180 DEGREES FROM THE PRIMARY ROOF HATCH IN ACCORDANCE WITH OSHA, AWWA D100-11 5.4.2.5 AND NFPA 22 5.7.4 REQUIREMENTS.



PHOTO SHOWS OPEN VIEW OF PRIMARY ROOF HATCH

THE TANK DOES NOT HAVE AN INTERIOR LADDER INSTALLED. WE RECOMMEND TO FURNISH AND INSTALL AN INTERIOR LADDER WITH SAFETY CLIMB DEVICE IN ACCORDANCE WITH OSHA, AWWA D100-11 5.4.2.5 AND NFPA 22 2013 5.7.4 REQUIREMENTS.



PHOTO SHOWS OVERVIEW OF ROOF INTERIOR

**WE RECOMMEND TO CAULK INTERIOR LAPPED ROOF JOINTS AFTER PAINTING TO PREVENT
PREMATURE FAILURE OF COATING.**



PHOTO SHOWS INTERIOR TANK SHELL ABOVE WATER LINE

**WE RECOMMEND TO CAULK THE ROOF TO RIM ANGLE CONNECTION TO PREVENT
PREMATURE FAILURE OF COATING.**

10/16/2017 1:44:04 PM

H: 045.7 °
D: 0.39 ft
Temp: 67.4 °F

PHOTO SHOWS OVERFLOW & WEIR BOX IN GOOD CONDITION

10/16/2017 1:38:39 PM



H: 290.4 °
D: 64.36 ft
Temp: 65.7 °F

PHOTO SHOWS MANWAY

CATHODIC PROTECTION IS AN EFFECTIVE WAY TO HELP PROTECT YOUR TANK FROM THE EFFECTS OF CORROSION. WE RECOMMEND TO FURNISH AND INSTALL A PASSIVE CATHODIC PROTECTION SYSTEM AS A COST EFFECTIVE AND LOW MAINTENANCE MEANS OF FURTHER PROTECTING AND EXTENDING THE SERVICE LIFE OF YOUR TANK.

10/16/2017 1:41:54 PM

H: 014.8 °
D: 63.84 ft
Temp: 66.6 °F

PHOTO SHOWS SECONDARY MANWAY IN GOOD CONDITION



PHOTO SHOWS INLETS / OUTLETS OR PIPING

THE FILL PIPE TERMINATES BELOW THE WATER LEVEL. WE RECOMMEND TO FURNISH AND INSTALL AN OVER THE TOP FILL LINE WITH 90 DEGREE ELBOW AT TERMINATION.



PHOTO SHOWS LIQUID LEVEL INDICATOR STABLIZERS

AS PREVIOUSLY MENTIONED, THE LIQUID LEVEL INDICATOR IS BROKEN. WE RECOMMEND TO REPAIR, CLEAN, AND LUBRICATE THE EXISTING LIQUID LEVEL INDICATOR AS NECESSARY IN ACCORDANCE WITH NFPA 22 2013 14.1.8 REQUIREMENTS.



PHOTO SHOWS INTERIOR SHELL CONDITION

THE INTERIOR OF THIS TANK IS EXHIBITING SIGNS OF CORROSION/STAINING/COATING FAILURE. WE RECOMMEND TO PROPERLY PREPARE THE AREAS OF DEFECT AND/OR ENTIRE INTERIOR SURFACE AND APPLY AN AWWA/NFPA APPROVED INTERIOR COATING SYSTEM AS NEEDED.

PITTING IS THE RESULT OF THE CORROSION OF THE TANK SHELL THAT DIMINISHES THE THICKNESS AND STRENGTH OF THE TANK SHELL. WE RECOMMEND TO INSTALL 12" X 12" X 3/16" PATCH PLATES OVER AREAS WHERE MULTIPLE PITS ARE IN AN AREA, WELD ISOLATED PITS THAT ARE 1/8" DEEP OR DEEPER, SEAM SEAL THE SHALLOW PITS WITH SEAM SEALER, AND TO REPAIR WELD SEAMS BY WELDING.

10/16/2017 1:39:36 PM

H: 157.1 °
D: 66.26 ft
Temp: 65.9 °F

PHOTO SHOWS SEDIMENT ON TANK FLOOR

DUE TO SEDIMENT ACCUMULATION ON TANK BOTTOM WE RECOMMEND A CLEAN OUT OF THIS TANK, THIS ALLOWS US TO FURTHER INSPECT THE BOTTOM OF THE TANK.

West Carroll Water District

Tank Inspection Form


HYDRANT INFORMATION	
Tank Name	Bells Ridge Tank
Tank Type and Capacity	Elevated 100,000 gallon
Date of Construction	2007
Date of Inspection	7-31-18
Cu Inspectors Names	<i>CR</i>
Tank Material Type/	Welded steel

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Is paint in good condition?	
<input checked="" type="checkbox"/>	Is tank free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is tank free of leaks, cracks, physical damage and corrosion?	
<input type="checkbox"/>	Does tank site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of tank?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all concrete foundations level?	
<input type="checkbox"/>	Are there any gaps between base and foundation?	
<input checked="" type="checkbox"/>	Is there any condensation on legs of tank?	
<input checked="" type="checkbox"/>	Are legs of tank straight and show no signs of distortion?	
<input checked="" type="checkbox"/>	Is X bracing tight?	
<input checked="" type="checkbox"/>	Condition of x bracing connections to legs or tank?	
<input checked="" type="checkbox"/>	Any distortion in tank bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any tank repair is needed please comment on that as well and notify your supervisor.

West Carroll Water District

Tank Inspection Form

HYDRANT INFORMATION	
Tank Name	MoundHill Tank
Tank Type and Capacity	Standpipe 112,000 gallon
Date of Construction	1994
Date of Inspection	7-31-18
Cu Inspectors Names	
Tank Material Type/	Welded steel

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Is paint in good condition?	
<input checked="" type="checkbox"/>	Is tank free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is tank free of leaks, cracks, physical damage and corrosion?	
<input type="checkbox"/>	Does tank site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of tank?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all concrete foundations level?	
<input checked="" type="checkbox"/>	Are there any gaps between base and foundation?	
<input checked="" type="checkbox"/>	Is there any condensation on legs of tank?	
<input checked="" type="checkbox"/>	Are legs of tank straight and show no signs of distortion?	
<input checked="" type="checkbox"/>	Is X bracing tight?	
<input checked="" type="checkbox"/>	Condition of x bracing connections to legs or tank?	
<input checked="" type="checkbox"/>	Any distortion in tank bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any tank repair is needed please comment on that as well and notify your supervisor.

West Carroll Water District

Tank Inspection Form

HYDRANT INFORMATION	
Tank Name	Gilgal Tank
Tank Type and Capacity	Elevated 50,000 gallon
Date of Construction	2006
Date of Inspection	<i>CR</i> 7-31-18
Cu Inspectors Names	<i>Chris Rose</i>
Tank Material Type/	Welded steel

OK	CHECKLIST	COMMENTS
<input checked="" type="checkbox"/>	Is paint in good condition?	
<input checked="" type="checkbox"/>	Is tank free of obstructions within a 10 ft. radius?	
<input checked="" type="checkbox"/>	Is tank free of leaks, cracks, physical damage and corrosion?	
<input checked="" type="checkbox"/>	Does tank site have appropriate grading?	
<input checked="" type="checkbox"/>	Is ground soft or soggy in vicinity of tank?	
<input checked="" type="checkbox"/>	Are any of the concrete foundations cracked or settled?	
<input checked="" type="checkbox"/>	Are all concrete foundations level?	
<input checked="" type="checkbox"/>	Are there any gaps between base and foundation?	
<input checked="" type="checkbox"/>	Is there any condensation on legs of tank?	
<input type="checkbox"/>	Are legs of tank straight and show no signs of distortion?	
<input checked="" type="checkbox"/>	Is X bracing tight?	
<input checked="" type="checkbox"/>	Condition of x bracing connections to legs or tank?	
<input checked="" type="checkbox"/>	Any distortion in tank bottom, shell, roof or other parts?	
<input checked="" type="checkbox"/>	Any signs of leakage in fittings, connections or seams?	
<input checked="" type="checkbox"/>	Condition of paint?	

Inspector/s, using the space below provide any additional comments about any problems encountered during the inspection. If any tank repair is needed please comment on that as well and notify your supervisor.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

12. Refer to the water utility's response to the March 12 Order, Item 14.
 - a. Provide the cost and purchase date of all equipment the water utility identified in its response.
 - b. State how frequently the identified leak detection equipment items are utilized by the water utility.

Response:

- a. Please see attached.
- b. Please see attached.

Jan 1st 2018 to current equipment purchases

Manufacturer	Equipment Description	Purchase Date	Cost	Freq. of use
Vermeer	D20x22 S3 Horizontal Directional Drill	5/11/2018	\$166,624.73	4-6 times per year
Bobcat	T590 Compact track loader	1/15/2019	\$42,005.00	2-3 times per month
Bobcat	72" Brushcat attachment	1/15/2019	\$5,372.00	semi-annually
Waterpoint	Line noise correlators	3/1/2019	\$8,564.00	2-3 times per week
Waterpoint	Acoustic pipe listening device	3/1/2019	\$3,064.00	2-3 times per week
Milwaukee	18 volt cordless sawzall	4/1/2018	\$299.00	2-3 times per week
Milwaukee	18 volt cordless angle grinder	4/1/2018	\$199.00	2-3 times per week
Ford	4wd extended cab Ranger	2/27/2019	\$26,894.00	Daily
Romac	Tapmate hot tapping machine 2" to 12"	7/31/2018	\$17,000.00	2-3 times per year
Neptune	Radio Read 3/4 meters qty 5	2/16/2018	\$1,093.75	Daily
Neptune	1" T10 meters qty 5	10/19/2018	\$1,192.25	Daily
Neptune	3/4 T10 meter qty 50	8/17/2018	\$2,735.00	Daily
TOTAL			\$275,042.73	

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

13. Refer to the water utility's response to the March 12 Order, Item 16. For water utilities that responded that they have no written policy to identify errors that result in missed customer billings or under billings of customer accounts, state whether writing and adopting a formal written policy regarding this would be considered by its board of commissioners or directors, and if not state why not.

Response:

Please see West Carroll's Response 16 to Commission Staff's First Request for Information for a detailed description of the methods used to identify errors.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

14. Refer to the water utility's response to the March 12 Order, Item 17. For water utilities that responded that they cannot accurately verify through testing how much water they produce at their water treatment plant, state how the water utility can accurately assess its water loss with an unverified production meter.

Response:

Not applicable. West Carroll does not produce any water nor operate a water treatment plant.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

15. Refer to the water utility's response to the March 12 Order, Item 18.
 - a. For water utilities that provided test results and had master meters that failed tests, state whether those master meters were replaced or repaired and provide the dates when they were replaced or repaired.
 - b. For water utilities that could not provide test results, provide any previous test results of the water utility's master meters or those from the wholesale provider from any previous date.

Response:

- a. Not applicable.
- b. Please see attached.

Henry Co. Water

15378725 (004)

Certified Test Results- Badger Meter

WALLERS METER INC
2606 WILSON AVE
MADISON, IN

Customer P.O. 35-10150

Order Number: 201168
Line Item: 2
Order Total: 4
Model: MODEL 170 LL (NSF 61-G MTR)
Size: 2"

SN	170gpm	8gpm	1.50gpm
15378725	99.6	100.4	99.0

Henry Co. Water

June 2017 Test Summary-Carrollton, Ky

Customer	Low Flow	Intermediate "Crossover"	High Flow	Test Date
		<u>Compound Meters</u> Only		
West Carroll	101.48%		98.55%	6-Feb-17
Interstate	98.11%	100.40%	98.08%	6-Feb-17

**Meter Serial
Number**

70262958

70257274

City of Cleveland

CERTIFIED FACTORY ACCURACY TEST

CUSTOMER West Carroll DATE 1/22/2014

Mueller Serial Number: 13921370 Customer Serial Number _____

UNIT OF MEASURE SG Model Number and Description Q9PS20592
MVR 160, SI, 2B, STD, SG, TRL6, HPHR

	CALIBRATOR	REGISTER	TRANSLATOR ID
MAIN LINE		D35261560B	13921370
BY-PASS M/L			
BY-PASS B/P			

Flow Test Results

RATE OF FLOW	PERCENT	RATE OF FLOW	PERCENT
GAL/MIN	REGISTERED	GAL/MIN	REGISTERED
120	101.2%		
15	98.0%		
2	103.0%		

If checked, certifies that the meter was tested to 350 psi per UL requirements

IN THE STATE OF NORTH CAROLINA
TOWN OF CLEVELAND

I HEREBY CERTIFY THE TEST GIVEN ABOVE IS A TRUE COPY OF ORIGINAL SHOP TEST.

By: V TOR

New
Meter installed 3/14/14
old meter read 18948700

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

16. Refer to the water utility's response to the March 12 Order, Item 19. Provide the total number of customer meters that are greater than ten years old that a water utility currently has in service, if any, and provide any previous tests for each of these meters. If the meter has not been tested, please state in the affirmative and state why it has not been tested.

Response:

Please see attached. Please note that on the attachment, the blue * under column "MFG Model" identifies the most recent test result for a meter that is over ten years old.

Q16

ACCT	Full Name	Service Address	Asset ID	First Installed	Last Test Date	
500092.00 96	MONEY, PATRICA S	1856 HWY 36 WEST	WC46751501	2000	2011	X
2103257.00 96	BURGIN, TRE M	16131 RIVER ROAD	26145261	2001	2011	X
2400580.00 96	O'NEAL, DARRELL	75 BELLS RIDGE	WC74327943	2001	2011	X
500405.00 98	BRIDGEVIEW LLC	59-4 HWY 55	WC74327939	2001	2012	X
2300400.00 97	OSBORNE, JOHN	3224 MOUND HILL ROAD	WC76041582	2002	2012	X
2400370.00 88	HAZELWOOD, MICHAEL LOUIS	1272 CULLS RIDGE	WC76041543	2002	2012	X
2102136.00 98	BICKERS, LEROY	2060 HWY 55	WC76041569	2002	2013	X
2100190.00 88	MYRICK, JOSHUA DANE	2343 CARLISLE ROAD	WC77221358	2003	2012	X
2300125.00 86	RODRIGUEZ, NICOLINA	1598 MOUND HILL ROAD	WC76041545	2003	2012	X
2400906.00 97	ALDRIDGE, CONNIE	2693 BELLS RIDGE	WC77221359	2003	2012	X
2402190.00 95	DAY, JACK	59 E PRONG LOCUST	38089347	2003	2012	X
2100230.00 92	PETRY, BETHANY	3070 CARLISLE ROAD	WC46617423	2003	2013	X
2200284.00 96	SNELL, JOHN EDWARD	1148 FAIRVIEW RIDGE	WC79419662	2004	2016	X
2200286.00 98	KELLEY, BOB	1050 FAIRVIEW RIDGE	WC79419694	2004	2016	X
2200411.00 97	GOECKE, JANE	1753 FAIRVIEW RIDGE	WC79419669	2004	2016	X
2200490.00 96	BUTCHER, JESSICA J	2236 FAIRVIEW RIDGE	WC79419657	2004	2016	X
2401765.00 98	HARSIN, COREY	2001 WRIGHTS RIDGE	WC79419684	2004	2016	X
2200250.00 96	MILLER, DAVID & APRIL	2152 HUNTERS HEIGHT RD.	WC79419687	2004	2018	X
2200280.00 88	MCKINLEY, SANDIE J	2252 HUNTERS HEIGHT RD.	WC79419688	2004	2018	X
2102770.00 98	ROBERTSON, BYRON	425 MILL CREEK ROAD	92185803	2005	2005	X
2103190.00 93	CARCHIDI, SHERI L	67 CAMP BRANCH ROAD	46617421	2005	2005	X
2103640.00 93	PRICE, SYLVIA	446 SHEEHAN ROAD	51470724	2005	2005	X
2103411.00 97	VIETNAMESE BUDDHIST ASSOC	444 ZEN FOREST ROAD	WC80666585	2005	2010	X
2102285.00 98	GLAUBER FARMS	HWY 389	WC49708901	2005	2016	X
2102350.00 95	OGBURN, RODNEY	1696 HWY 389	WC80666584	2005	2016	X
2102360.00 98	TRITSCH, TIM	1726 HWY 389	WC80666583	2005	2016	X
2102440.00 98	HOTFIL, CHARLES	2018 HWY 389	WC80666609	2005	2016	X
2102510.00 98	NEW, JERRY	133 GREENS BOTTOM	WC80666545	2005	2016	X
2102590.00 98	MAHONEY, GEORGE A	435 GREENS BOTTOM	WC80666541	2005	2016	X
2200460.00 93	SMITH, BRIAN R	1995 FAIRVIEW RIDGE	WC80666581	2005	2016	X
2300850.00 98	NASH, MICHAEL	1128 WOODROW WILSON ROAD	WC80666556	2005	2016	X
2400080.00 98	LOVINS, TROY	1812 PALMYRA ROAD	WC80666578	2005	2016	X
2400115.00 98	HERALD, DARIN	2287 PALMYRA ROAD	WC80666558	2005	2016	X
2400510.00 98	SACHLEBEN, JW	2965 PALMYRA ROAD	WC80666553	2005	2016	X
2400530.00 97	SMITH, JAMES A	2997 PALMYRA ROAD	WC80666552	2005	2016	X
2401050.00 98	COOPER, GARY E	3549 KINGS RIDGE ROAD	WC80666607	2005	2016	X
2401060.00 98	REPPER, FRANK	3507 KINGS RIDGE ROAD	WC80666604	2005	2016	X
2401210.00 98	VAUGHT, JOHN	327 WINDY RIDGE	WC80666636	2005	2016	X
2401230.00 97	OWEN, DEANA	415 WINDY RIDGE	WC80666640	2005	2016	X

2401240.00 95	EDWARDS, LOIS	526 WINDY RIDGE	WC80666635	2005	2016	X
2401270.00 95	ELLISON, KENNETH DUANE	523 WINDY RIDGE	WC80666639	2005	2016	X
2401290.00 98	CRAWFORD, MARVIN	521-HOUSE WINDY RIDGE	WC80666634	2005	2016	X
2401310.00 98	MARSH, GEORGE	3308 KINGS RIDGE ROAD	WC80666633	2005	2016	X
500721.00 96	BYRD, JENNIFER L	1255 KINGS RIDGE ROAD	WC79419649	2005	2016	X
500723.00 97	CONLEY, MARK	1257 KINGS RIDGE ROAD	WC79419650	2005	2016	X
500725.00 97	GOFF, GREG	1465 KINGS RIDGE ROAD	WC79419680	2005	2016	X
500727.00 98	GOFF, DENNIS	1550 KINGS RIDGE ROAD	WC79419679	2005	2016	X
500730.00 97	BOWERS, MARJORIE	1732 KINGS RIDGE ROAD	WC79555819	2005	2016	X
500732.00 98	SMITH, LINDA	1842 KINGS RIDGE ROAD	WC79419654	2005	2016	X
500744.00 98	TILLEY, GARY	2014 KINGS RIDGE ROAD	WC79555818	2005	2016	X
500750.00 98	WILLIS, GEORGE	2150 KINGS RIDGE ROAD	WC80666568	2005	2016	X
500752.00 98	PROCTOR, MABLE	2208 KINGS RIDGE ROAD	WC80666567	2005	2016	X
500762.00 98	MOYERS, STEVEN	2383 KINGS RIDGE ROAD	WC80666565	2005	2016	X
2300665.00 98	FITZGERALD, THERESA	733 CALENDAR ROAD	WC80666551	2005	2018	X
2400110.00 98	SMITH, ROBERT L	2276 PALMYRA ROAD	WC80666554	2005	2018	X
2401965.00 93	CROSSROADS RENTALS	1293 LOCUST ROAD	WC80666580	2005	2018	X
2402325.00 96	WRIGHT, RICHARD A	1674 E PRONG LOCUST	WC51470723	2006	2006	X
2402400.00 97	MARTIN, JOHN A	2666 E PRONG LOCUST	24416540	2006	2006	X
500422.00 76	PORT WILLIAM INVESTMENTS LLC	741 CARLISLE STREET	WC51235015	2006	2006	X
500930.00 97	SHAW, LARRY & ANGEL	2224 HWY 42 WEST	WC77221402	2006	2016	X
2400540.00 98	JOHNSON, SHEILA	3018 PALMYRA ROAD	WC80666591	2006	2017	X
2401045.00 98	STAFFORD, RICHARD B	3567 KINGS RIDGE ROAD	WC82738432	2006	2017	X
2401130.00 97	NEW, SHERRY	391 R.D. KENDALL ROAD	WC80666599	2006	2017	X
2401135.00 98	REGAN, DANIEL	412 R.D. KENDALL ROAD	WC82738431	2006	2017	X
2101068.00 82	BROWN, STEVEN THOMAS	171 ALS DRIVE	WC82738421	2006	2018	X
2102165.00 93	RHOADS, COSETTA D	2792 HWY 55	WC82738426	2006	2018	X
2102645.00 96	WILSON, LYNDA	203 SANDLIN ROAD	WC82504202	2006	2018	X
2103170.00 98	MAY, JUDY	227 CAMP BRANCH ROAD	WC82504205	2006	2018	X
2300900.00 88	SAMMONS, THELMA	1658 MILL CREEK ROAD	80666597	2006	2018	X
2400130.00 97	KURTZ, JESSICA C	2501 PALMYRA ROAD	WC80666600	2006	2018	X
500257.00 97	MCINTYRE, BRANDI	455 HWY 42 WEST	WC82504215	2006	2018	X
500315.00 97	FLOGEO LLC	228 HWY 42 WEST	WC82504214	2006	2018	X
501195.00 98	BRANNICK, MARY ANN	5 HARBOR LANE	WC82738435	2006	2018	X
501602.00 97	MITCHELL, TEX D	3140 HWY 42 WEST	WC82504203	2006	2018	X
2102900.00 83	WILLIAMS, ASHLEY N	84 OSBORNE DRIVE	WC82738419	2007	2018	X
500620.00 95	M&M USED AUTOS	59A BRIDGE STREET	WC82738448	2007	2018	X
2100170.00 98	BOND, TERESA	2144 CARLISLE ROAD	31269135	2008	2008	X
2100309.00 98	IRWIN, CHARLES R	4597 CARLISLE ROAD	45997591	2008	2008	X
2102642.00 98	WATSON, CHRISTINA	163 SANDLIN ROAD	WC80666576	2008	2008	X

2103545.00 92	WYMAN, PAUL	915 OLD GILGAL ROAD	45997613	2008	X
2102890.00 98	OSBORNE, FRANCES	47 OSBORNE DRIVE	WC85126663	2016	X
2101102.00 82	EMBREE, DONNIE	159 HARDY CREEK ROAD	45563317	2018	X
2103060.00 98	GARRETT, DALTON	4242 HWY 389	WC85126673	2018	X
2401915.00 97	MARKO, OLLIE	701 WRIGHTS RIDGE	WC77221395	2018	X
500418.00 82	WARD, JOSEPH J	735 CARLISLE STREET	WC79419671	2018	X
2401810.00 90	WEBSTER, LINDA	1499 WRIGHTS RIDGE	39801795	2008	X
500346.00 92	OAKS PROPERTY LLC	178 HWY 42 WEST	WC79419683	2004	X
2102652.00 98	STUMP, LARRY	19 HARTMAN LANDING	WC80666546	2005	X
2103070.00 91	WOOD II, WILLIAM J	4440 HWY 389	WC518742	2005	X
2401910.00 98	WARD, JAMES C	690 WRIGHTS RIDGE	98930350	2005	X
2401930.00 98	SCOTT, SAM	2347 HWY 36 WEST	WC49708904	2005	X
2401942.00 98	CROWELL, TODD	691 LOCUST ROAD	WC48887357	2005	X
500249.00 94	CUMMINGS, DEBORAH	125 CARLISLE STREET	WC82504212	2006	X
500286.00 98	WELCH, ERNEST & DONNA	202 DONNA DRIVE FLEA MARKE	WC49708902	2006	X
2402365.00 97	GRAY, DONALD JR	1989 E PRONG LOCUST	WC82738434	2018	X
500985.00 97	PAEPER, JASON	2578 HWY 42 WEST	WC80666625	2018	X
2301095.00 98	BARR, GREG & LESA	101 PRYOR BRANCH ROAD	WC49927578	2007	X
2300930.00 98	ROBBINS, PATRICIA C	2539 MILL CREEK ROAD	47336065	2013	X
2102580.00 88	CHADWELL, GARY	399 GREENS BOTTOM	51931346	2007	X
2102646.00 98	TURNER, ANGELA	244 HARTMAN LANDING	WC85126677	2008	X
2300030.00 97	KELLER-HOUSER, JACKQUELYN M	1276 MOUND HILL ROAD	WC85126689	2008	X
2300123.00 86	CABBAGE, BYRON S	1588 MOUND HILL ROAD	WC85126693	2008	X
2401785.00 98	TAYLOR, DAWN	1633 WRIGHTS RIDGE	WC85126681	2008	X
2401857.00 93	DUKE, JUDITH	886 WRIGHTS RIDGE	WC85126680	2008	X
500048.00 98	FROMAN, JIM	505 NOTCHLICK ROAD	45563328	2008	X
500519.00 94	CHRISTMAN, KEVIN	10 DUNN STREET	WC51476333	2008	X
2401939.00 98	THOMPSON, MARK	417 LOCUST ROAD	WC85126670	2009	X
500997.00 98	STEPHENSON, SHAWN	2569 HWY 42 WEST	32069483	2009	X

10059

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST		
1	WEST CAROL	MEPTUNE T-10	79419654	99.4	99.8	99.9	AD						
2			89733134	98.7	99.9	97							
3			9419655	99.4	100	98.9	AD						
4			79555819	99.7	100	100	AD						
5			80666570	99.4	99.9	99.7	AD						
6			94561840	99.2	100.8	98.3	AD						
7			85126663	stop	ed			99.5	100	96	AD		
8			80666577	98.9	98.5	32		98.5	99	98	AD		
9			80666629	98.8	99.9	97.5	AD						
10			76041549	99.4	99.2	99	AD						
11			94561833	99.1	99.2	96	AD						
12			93567989	stop	ed			99	99	96.5	AD		
13			80666619	99.5	99.5	99.8							
14			80666567	99.5	99.8	99.2	AD						
15			80666547	98.3	99	99.5		98.8	99	97.2	AD		

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Orton Dyer
 5-26-16

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

6020

West Carroll Water

METER SIZE	METER MFG.	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS		
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST			
1	58X34	ROCKWELL	S/R	41288090	99.9	98.5	94.5							
2				24416410	98.2	98.5	80		100	100	99.5			No clog
3		SENSUS	SPEL	51235070	99.6	100.5	100							
4				51470722	99.6	100	98.5							
5				49185726	100	99	96							
6		BADGER	25	87023882	99.5	100	99.5							
7				88489878	98.7	100	100							
8				94811904	99	100	100							
9				87731055	98.7	100	98.5							
10				98105649	99.2	100	100							
11				87860680	99.2	99	98.5							
12				98930350	94.3	94.5	95		99.1	100.5	96.5			Noisy
13		NEPTUNE	-10	46617421	98.7	100	99							
14				416617426	99.2	100	100							
15				45563337	99.4	100	99							

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Denard Dyer
 50-ec-11

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

lb 6021

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS
				FAST FLOW	MED FLOW	SLOW FLOW	FAST FLOW	MED FLOW	SLOW FLOW	
1	SENSUS	SRT	50070740	99.5	100	97.5				
2			51470724	98.6	100	98.5				
3	ROCKWELL	SR	24409334	97.3	95.5	88	97.8	100.5	98	Notes
4			42765209	98.6	101.5	93.5				
5	SENSUS	SR	47374069	99.4	100	94.5				
6			46751503	99.6	100.5	97.5				
7			48044553	99.9	100	93				
8			46751460	99.1	100	94.5				
9			43747563	99.8	100.5	95.5				
10	ROCKWELL	SR	38089350	100	100.5	93				
11			41428210	100	100.5	98				
12	SENSUS	SRT	52853368	100	100.5	98.5				Red in new 12-21-05
13			50883969	99.4	100	96.5				
14			50070659	99.4	100	95.5				
15	BAUDLER	2S	98930253	STOP			99.4	99.5	99.5	Unit gone

West Carroll Water

Daniel Dyer
11-22-05

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____
 REPAIRED BY _____

61562

DYER METER SERVICE LLC
1300 Bracht Road
Corinth, KY 41010
859/824-6067

6024

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	
1	3/4 BADGER	25	88489880	98.8	100	100.5				
2		★	92185803	99.2	100	100				
3	NEPTUNE	7-10	45097621	99.6	100	100				
4			46029064	STOP						
5			77221396	99.5	100	97.5				
6										
7										7 SR REG.
8										2 MOD 25 REG.
9										5 SR BOT.
10										3 SRI BOT.
11										2 T-10 BOT.
12										1 MOD 25 BOT.
13										
14										
15										

West Corroll Water

98.0

101

91.2

99.8

98.5

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

REPAIRED BY Daniel Dyer

11-28-05

for
11/6/05
11/2/06
9376

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

West Carroll Water Dist.

METER SITE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG TEST		
1	58234	SENSUS	51235073	99.3	100	97.5	✓						
2			51235068	99.6	100.5	98	✓						
3			50070693	99.6	100	98.5	✓						
4			48894311	98.7	99	97.5	✓						
5			48894709	99.4	99.5	99	✓						
6			52853368	100	100.5	100	✓	NEW LID				in Dewar?	
7			51470718	99.2	100	96.5	✓						
8			50883901	99.6	100.5	98.5	✓						
9			51235015	99.3	100	96.5	✓						
10			51235108	99.5	100	98	✓						
11			51470723	99.5	100	98	✓						
12			48894874	98.5	100.5	100	✓						
13			51470926	570F			✓			99.9	100.5	99.5	Christell when Dur was off
14			52853546	99.7	100	98	✓						
15			52852597	100	100	98.5	✓						

Alton Ayer
8-14-06

REPAIRED BY _____
RECEIVED BY _____
RECEIVING AGENT _____

8042

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFC MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS		
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST			
1	5K-174	Rockwell	SR	38089349	99	100	95	96						
2		SENSUS	SR	47649632	99.3	99.9	96	96						
3		BADGER	25	29420606	98.5	99.4	95	96						
4		SENSUS	SRT	51470722	99.4	100.1	98	98						1-MOD 25 REG.
5				4889 1309	99.6	99.1	100	96						2-SR REG.
6		BADGER	25	92325312	98.6	99.9	99.5	96						1-T-10 REG.
7		NEPTUNE	T-10	80666585	99	100	96	96						5-SR BOTTOMS
8		Rockwell	SR	32069340	98.8	100	92	96						1-SRT# BOTTOMS
9				24416545	99.4	99.9	96	96						6-T-10 BOTTOMS
10		SENSUS		45200334	99	99.4	95.5	96						1-MOD 25 Bottom
11		Rockwell		32069301	99.1	100	91.4	96						
12		SENSUS		48044554	98.5	98.9	91	96						
13		BADGER	25	78636520	97.1	100	100	96						
14														
15														

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

REPAIRED BY Denard Dyer

8-25-10

8210

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	
1	51235079	SR	24417331	97.7	99.5	88.5	—	99.2	99.8	97.1	KG	
2			46751457	100.3	101	97	KG					
3			26145263	99.6	101.5	91.5	KG					
4		★	46751501	100.3	101	96	KG					
5			42765202	99.1	97	68	—	100.1	101	100	KG	
6			47271835	99.8	100.5	94.5	KG					
7		★	26145261	98.3	100	86.5	—	98.7	100	98.5	KG	
8			48044555	100.2	101	96	KG					
9	SEUSUS	SRT	51930919	100.3	100	98.5	KG	NO CHARGE			FIXED BOTTOM	
10			4889 4745	99.6	100	97.5	KG					
11			51931131	99	100	97.5	KG					
12			51476726	99.1	99.5	95.5	KG					
13			51235078	99.5	100.5	98.5	KG					
14			49032792	99.5	100.5	97.5	KG					
15			51235079	99.2	100	93	KG					

WEST CARROLL WATER

DATES METERS RECEIVED _____

METERS RECEIVED FROM _____

RECEIVING AGENT _____

REPAIRED BY

Donal Dyer

2-11-11

8592

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS		
				FAST FLOW	MED FLOW	SLOW FLOW	FAST FLOW	MED FLOW	SLOW FLOW		AVG. TEST	AVG. TEST
1	NEPTUNE	T10	76041565	99.8	100	96.1						
2	BADGER	25	94811902	99.3	100	98.4						
3		25	98630519	99	99.9	99						
4	ROCKWELL	SR	24416360	99.6	101	96.5						
5		SR	19138566	99.1	100	90						
6	NEPTUNE	T10	85126678	99.2	100	98						
7			76041545	99.6	99.8	96						
8			85726695	51077ED			99.7	100	100			
9			80666550	51077ED			99.5	100	99.5			
10			82504200	51077ED			99.6	100.5	99.5			
11			85126682	99.3	99.8	98						
12	SFNSUS	SR	51420719	99.2	100	96						
13			52853534	100.2	100.2	99						
14			50070762	99.8	99.9	99						
15			51470823	98.6	97.8	95						

DATES METERS RECEIVED _____

METERS RECEIVED FROM _____

RECEIVING AGENT _____

REPAIRED BY

Donald Dyer

2-15-12

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

8594

WEST CARROLL WATER

	METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS		
					FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW		SLOW FLOW	AVG TEST
1	5/8" 3/4"	NETTUNE	T-10	76041583	100	100	99	KG					
2			T-10	76041541	100.3	100	99	KG					
3				76041567	100.3	100	99	KG					
4				76041585	100.5	99.8	97.1	KG					
5				76041582	100.4	100	99	KG					5/8" SR II Bottoms -5
6				76041543	100.3	100	98	KG					3/4" T-10 "
7				76041568	100.7	100.1	100	KG					1/2" T-10 "
8				76041510	STOPPED								
9	5/8" 3/4"			77221361	STOPPED				99.4	99.5	98	KG	
10	1"	NETTUNE	T-10	48310852	101.4	100.2	100	KG					
11	1"	NETTUNE	T-10	48773459	100	99.8	96.5	KG					
12													
13	1 1/2"	BARGER	120	09420071	100	100	100						
14													
15													

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Donald Dyer

2-16-12

8724

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

WEST CARROLL WATER

METER SIZE	METER MFG	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS		
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW		SLOW FLOW	AVG. TEST
1	3/4 SENSUS	SR#	51470728	99.7	100	97.4	KG					
2	/	SR#	50070697	100.2	100	95	KG					
3	BADGER	25	92185801	99.8	100	100	KG					
4	/	/	98930357	99.3	99.1	98	KG					
5	/	/	98779268	99	99	96	KG					
6	/	/	87731052	98.9	99.4	96.4	KG					
7	/	/	92325311	99.1	100	97	KG					
8	ROCKWELL	SR	19144517	99.2	98.9	90	KG					
9	NEPTUNE	T10	77221374	99.4	98.7	94	KG					
10	/	T10	77221405	99.1	99.5	96	KG					
11	/	T10	74327939	98.9	99.7	96.7	KG					
12	SENSUS	SR#	51930921	99.3	100	96	KG					
13	/	/	50070660	99.5	100.1	97.5	KG					
14	/	SR	45200328	100.1	100	94	KG					
15	ROCKWELL	SR	38089347	99.3	100.7	91	KG					

REPAIRED BY Donald Dyer

RECEIVED FROM _____

RECEIVING AGENT _____

DATES METERS RECEIVED _____

5-22-12

8725

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

	METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				
					FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	
1	56.3/3/1	NIPTUNE	T-10	77221404	99.1	99.1	95.8	KG					
2				77221364	99.2	99.4	96	KG					
3				77221358	99.5	99	95.9	KG					
4				76041555	99.6	100	98	KG					
5				76041558	99.5	100	99	KG					
6				415997605	51077	ED			99.6	99.7	99	KG	
7				76041554	99.7	100	98	KG					
8				77221378	99.7	100	98	KG					
9				77221359	99.5	100	97.4	KG					
10				77221383	99.4	99.9	97.6	KG					
11				77221382	99.2	100	98	KG					
12				76041549	99.8	99	97	KG					
13				76041559	99.9	100	95	KG					
14				77221381	98.9	98.9	94.5	KG					
15				77221360	99.4	99.2	95	KG					

WEST CARROLL WATER

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Donna Dyer

5-22-12

8978

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

METER SITE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS					
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED. FLOW		SLOW FLOW	AVG TEST			
1	56N3M	NETPUNE	T-10	77221391	98.9	99.6	98.5	ND							
2				82504209	99.5	99.7	98.1	ND							
3				77221394	99.3	100	99	ND							
4		SENSUS	SR#	50883998	99.6	100	96	ND							50883979
5				52853371	99.6	99.7	96	ND							50883978
6				52853509	99.3	100	95	ND							3896
7				47649683	99.8	99.8	97	ND							3974
8				47649634	99.8	100	93.5	ND							3976
9		Rockwell	SR	41428285	99.1	100.1	91	ND							3967
10		NETPUNE	T-10	77221397	99	99.1	98	ND							3968
11				77221393	98.7	98.7	91.5	ND							3979
12				46682765	99	98.9	92	ND							
13				46029059	99.8	100	98.5	ND							
14				77221392	99.2	99.6	98	ND							
15				46617423	99.2	99.2	97.6	ND							

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Donal Dyer

4-30-13

8980

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

WEST CARROLL WATER

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS			AFTER REPAIR TEST RESULTS			PARTS
				FAST FLOW	MED. FLOW	SLOW FLOW	FAST FLOW	MED. FLOW	SLOW FLOW	
1 5/8"	NEPTUNE	T-10	80666632	99.1	100	98.9				
2			72221398	99.3	99.2	98.5				
3			76041569	99.8	100	99				
4			710041563	100	100	99.4				
5	SENSUS	SRT	49032710	100	99.5	96.5				
6										
7 1"	NEPTUNE	T-10	48310852	STOPPED			100.4	100.1	98.5	
8 1"	BADGER	40	89633300	99.2	101	100				1-mod 25 REL
9										2-5/8 SR BOTTOMS
10 2"	BADGER	170	98472872	100	100	99				5-5/8 T-10 BOTTOMS
11 2"	BADGER	170	05014071	99.6	100.9	99				
12										
13 3"	Badger	Series 4039140 Comp. 04129140		77mm	77mm	61mm				
14			High.	100.8	100.5	100.2				
15			low	100.5	100.7	100.1				

REPAIRED BY: Donald Dyer

5-1-13

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

10059

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	WEST CARROL	WEST CARROL	79419654	99.4	99.8	99.9	AD						
2			89733134	98.7	99.9	97							
3			9419655	99.4	100	98.9	AD						
4			79555819	99.7	100	100	AD						
5			80666570	99.4	99.9	99.7	AD						
6			94561840	99.2	100.8	98.3	AD						
7			85126663	stop	ed			99.5	100	96	AD		
8			80666577	98.9	98.5	32		98.5	99	98	AD		
9			80666629	98.8	99.9	97.5	AD						
10			76041549	99.4	99.2	99	AD						
11			94561833	99.1	99.2	96	AD						
12			93567989	stop	ed			99	99	96.5	AD		
13			80666619	99.5	98.5	99.8							
14			80666567	99.5	99.8	99.2	AD						
15			80666547	98.3	99	99.5		98.8	99	97.2	AD		

REPAIRED BY
Anton Dyer
5-26-16

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

10058

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG.	METER MFG.	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	NEPTUNE	T-10	77221399	stopped	stopped	stopped	←	99.2	98.5	95	95	AD	S.N. 85126690
2			85126694	stopped	stopped	stopped	←	99.2	99	95	AD		
3			77221373	stopped	stopped	stopped	←	99.1	99	97.3	AD		
4			68665265	98.9	100.9	98	AD						
5			77221385	99.2	99.9	96	AD						
6			8066632	99.2	100	98.2							
7			68665211	99.3	100.1	99	AD						
8			85126700	99.6	100	98	AD						
9			80666604	99.4	99.9	99	AD						
10			94561843	99.2	100	94	AD						
11			93567983	99.2	100	98	AD						
12			80666626	99.1	99	97.9	AD						
13			80666607	99.2	99.1	99	AD						
14			80666568	99.2	100	98	AD						
15			79555818	99.5	100	100	AD						

WEST CAROL

REPAIRED BY After Dyer
5-26-16

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

10061

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER INFO	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS							
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST				
3/8	NEPTUNE F-10		80666575	99.3	100	99	AD								
			80666571	99.2	99	99.5	AD								
			80666574	99.1	100.5	98	AD								
			80666631	99	99	98	AD								
			94561845	98.9	100	97.5	AD								
			94867697	98.9	99.9	96	AD								
			80666587	99.2	99.9	98	AD								
			80666573	99.1	99.9	99.8	AD								
			80666588	99.5	100	98.5	AD								
			80666636	99	100	98.9	AD								
			80666613	99.3	100	89	AD								
			80666635	98.7	99.2	100	AD								
			82738438	98.9	99.9	98.5	AD								
			85126706	98.9	98.8	97	AD								
			80666545	99.3	99	97	AD								

WILEST CARROL

REPAIRED BY WILEST CARROL
5-27-16

REPAIRED BY

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

10062

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

METER SIZE	METER MFG	METER MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS					
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST		
1	3/8	NEPTUNE	79419690	99.4	99.8	98	AD						
2			80666614	99.2	99.8	99	AD						
3			94561838	99	99	99	AD						
4			80666584	99.1	100	96	AD						
5			80666552	99.4	99.9	99	AD						
6			93567987	98.9	99.9	92	AD						
7			80666581	98.9	100	79	←	98.5	98.5	95	AD		
8			80666553	99.7	99.9	100	AD						
9			80666578	99.3	100.5	99	AD						
10			76047585	89.6	99.8	98.5	←	98.7	98.5	91	SN	89733135	
11			79419680	99.6	100	98.5	AD						
12			80666558	99.2	100	98.5	AD						
13			45997621	99.5	99	97.5	AD						
14			80666559	99.5	100	99	AD						
15			80666563	98.8	98.5	93.5	AD						

WEST CAMOL

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY Alton Rye
 5-27-16

10060

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG.	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	NEPTUNE	F-10	93568016	99.5	99	98	AD						
2			93568015	99.5	99	97	AD						
3		*	77221402	99.5	100	99.8	AD						
4			79419674	99.5	99.5	99	AD						
5			94561839	99.3	100	98	AD						
6			80666586	99.2	100	98.3	AD						
7			85126661	99.4	99.8	97	AD						
8		*	80666556	98.6	99.5	95	AD						
9		*	80666609	99.3	99.2	98	AD						
10			79419660	99.3	100	99	AD						
11		*	79419657	99.3	99	95	AD						
12			67648677	99.2	99.8	99.8	AD						
13		*	79419669	99.3	100	99.9	AD						
14		*	80666640	98.8	100	95.5	AD						
15			46682762	99.3	99	99.9	AD						

WEST CAROL

REPAIRED BY
Orton Dyer
5-27-16

REPAIRED BY

DATES METERS RECEIVED

METERS RECEIVED FROM

RECEIVING AGENT

10064

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG.	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1 5/8	NEPTUNE	☆	80666583	98.8	99.2	97.7	AD						
2		☆	79419684	99.1	99.5	99	AD						
3			76041572	100.1	99	99	AD						
4			87204704	99.3	96	58	←	98.5	99.1	95		38562328	
5		☆	79419649	99.6	100	99	AD						
6			79419675	99.2	100	99		S.N.		38562398			
7		☆	79419650	99.5	100	98	AD						
8			80666561	99.2	99	93.5	AD						
9			33095633	99.1	99.1	95							
10			80666620	98.8	99	97.9	AD						
11			45997598	98.5	99	96	AD						
12			77224378	99.2	99.8	98	AD						
13			15997622	99.2	99	96							
14 1"	NEPTUNE	F10	51443789	Stopped			←	99.4	100	98		AD	
15 1"			48887361	Stopped			←	99.1	98.5	94.5		AD	

WEST CAROL

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

REPAIRED BY

After Dyer
6-1-16

10063

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER INFO	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	
1	3/8	NEPTUNE	79419679	99.2	100	73	←	98.7	98.5	95	AD	
2			80666634	99.2	100	98.8	AD					
3			79419670	99.1	100	97	AD					
4			80666639	98.5	100	100	AD					
5			80666633	99.3	100	100	AD					
6			79419648	99.2	99	99.1	AD					
7			80666655	99.2	100	99	AD					
8			80666637	99	99	95	AD					
9			79419662	99.2	99.8	99	AD					
10			80666638	99.1	99.8	99	AD					
11			79419694	99.2	100	99	AD					
12			93567993	99.1	99.5	96.5	AD					
13			79419664	99.3	99.1	95.1	AD					
14			80666651	99.3	100	97	AD					
15			80666627	99.1	100	98.3	AD					

INVEST CARROL

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

REPAIRED BY

Carlton Dyer
6-1-10

10066

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

METER SIZE	METER MFG	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1 1"	NEPTUNE	AT-10	49708901	100.	99.7	98	XD						12- Boltons 1- Register
2	↓	↓	48773451	99	99	95							
3	↓	↓	48773448	99.3	99.2	98							
4	↓	↓	51443788	99.3	99.8	98.8							
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

WEST CAROL

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY Alton Dyer
 6-6-16

10493

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	
1	1"	NEPTUNE	52167741	99.6	99.5	99	✓	99.6	99	98	✓	
2	5/8x3/4	NEPTUNE	85126687	Stopped	Stopped	Stopped	←	99.6	99	98	✓	
3			80666579	99.1	98.5	Stopped	←	99.6	100	96.3	✓	
4			82738445	99.6	100	94.5	✓					
5			68665325	99.4	99.5	96.5	✓					
6			80666617	99.7	99	98.5	✓					
7			82738441	99.9	100	98.5	✓					
8			80666597	99.5	99.2	98.5	✓					
9			82504206	99.8	100	98.9	✓					
10			68665235	99.2	99	97	✓					
11			82738431	99.9	98.5	92	✓					
12			80666596	99.5	99.5	92	✓					
13			80666572	99.5	100	96	✓					
14			82738437	99.5	100	96.5	✓					
15			85126657	99.4	100	92.8	✓					

AD
 19-18
 17

REPAIRED BY Bill Osborne
 8-12-17

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

10535

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

NEST CARROLL

METER SIZE	METER MFG	MFC MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	
1	3/4x3/4 NEPTUNE	T-10	79419653	99.9	100	86	←	100.2	99.9	99	✓	
2			79419659	99.5	99	94	✓					
3			82738440	99.7	106	96	✓					
4			94561842	99.3	100	96.5	✓					
5			82738436	99.7	100	95.5	✓					
6			82738429	99.7	100	97.9	✓					
7			68665212	99.3	99.1	97.8	✓					
8			82738449	99.5	98.5	95	✓					
9		★	80666599	99.4	99	98	✓					
10		★	80666591	99.5	98.5	98	✓					
11		★	82738432	99.8	100	96.5	✓					
12			80666601	99.7	99.5	85	←	100.1	100	98.5	✓	
13			80666594	99.7	99	99	✓					
14			80666628	99.6	99.5	98	✓					
15			45997608	99.7	100	95	✓					

DATES METERS RECEIVED

METERS RECEIVED FROM

RECEIVING AGENT

REPAIRED BY

Dillon Dyer
8-13-17

10669

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

METER SIZE	METER MFG	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS		
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST			
2	NEPTUNE	F10	79419682	99.9	99	95	✓							
2			67158887	speed	speed	speed	←	100.1	100	97.8	SN.	79417663	✓	
3			80666543	speed	speed	speed	←	99.3	99	96	SN.	76041550	✓	
4			45563316	99.3	99.5	95.9	✓							
5			80666603	99.5	99	87	←	99.7	99.5	100	SN.	77221387	✓	
6			80666611	100.1	99.5	79	✓							
8			80666580	99.8	100	99	✓							
8			82738436	99.6	100	99.5	✓							
9			76041563	99.9	100	100	✓							
10			74327910	99.7	100.5	96	✓							
11			92738437	99.4	100	97	✓							
12			76041539	100.1/01		97	✓							
13			68665219	99.2	100	97	✓							
14			82738420	99.7	100	98	✓							
15			77221393	98.8	99.5	95	✓							

WEST CARROLL - WATER

REPAIRED BY Dyler Dyer
 4-4-18

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

10670

DYER METER SERVICE LLC
1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG.	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	5/8" 3/4 NEPTUNE	T-10	67648678	99.5	100	98	✓						
2			80666624	99.7	100	98	✓						
3			80666589	99.7	100	98.5	✓						
4			67391069	99.5	100	96.2	✓						
5			82504202	99.9	99.3	97	✓						
6			80666548	99.8	100	98.5	✓						
7			74327912	99.7	99.8	97	✓						
8			77221360	99.6	100	100	✓						
9			80666623	99.8	99	100.5	✓						
10			79419688	99.8	100	100.9	✓						
11			79419671	100.3	100	100	✓						
12			77221385	99.5	98.9	100	✓						
13			82738425	99.7	100	100	✓						
14			45563335	99.1	99	94.1	✓						
15			80666630	99.4	100.5	77	✓						

WEST CARROLL WATER

REPAIRED BY
Offen-Dyer
4-5-18

REPAIRED BY

_____ DATES METERS RECEIVED
_____ METERS RECEIVED FROM
_____ RECEIVING AGENT

10671

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

WEST CARROLL WATER

METER SIZE	METER INFO	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	3/4" NEPTUNE	T-10	74327944	99.3	100	98.3	✓						
2		★	82504205	100	100	100	✓						
3			80666602	99.5	100	99	✓						
4		★	82738426	99.2	99.8	98	✓						
5		★	80666600	99.7	100	100	✓						
6			79419678	97.8	100	95	✓						
7		★	77221395	99.2	97.8	98.5	✓						
8			77221396	89.5	87	62	✓	99.9	97.5	96	SN.	82504209	✓
9		★	82738448	97.7	97.5	slow	✓	99.9	100	97.2	SN.	79419689	✓
10		★	82738419	99.8	100	99.4	✓						
11			82738424	99.7	100	98	✓						
12			82738423	99.5	100	100	✓						
13		★	45563317	99.8	99.5	98.5	✓						
14			82738444	100.2	101	97.5	✓						
15		★	82738421	99.7	99.5	98.9	✓						

DATES METERS RECEIVED

METERS RECEIVED FROM

RECEIVING AGENT

REPAIRED BY

Alton Ayer
4-5-18

10673

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER INFO	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS			
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST				
1	5481341	NETUNE	T-10	85126687	99.3	99	97.8	✓							
2				518499	79.1	97.5	77.5	✓							
3				80666562	99.8	100	98.2	✓							
4				79419670	99.4	100	98.5	✓							
5				825042008	100	100	96.9	✓							38804574
6				79419667	99.4	100	97	✓							
7				82504214	99.9	100	98.5	✓							
8				74561838	99.9	100	95	✓							
9				68665308	99.2	99	98.3	✓							
10				82504215	100.1	100	98.1	✓							
11				82738440	99.7	99	85	✓							76041564 ✓
12				85126679	97	97	60	✓							79419668 ✓
13				45977621	77.2	99.4	73	✓							
14				89733127	98.8	99.4	96	✓							
15				80666617	99.4	100	98	✓							

WEST CARROLL WATER

Dyler Dyer
4-6-18

REPAIRED BY

DATES METERS RECEIVED

METERS RECEIVED FROM

RECEIVING AGENT

10672

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

WEST CARROLL WATER

METER SIZE	METER MFG	METER MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS		
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST			
1	3/8x3/4	NEPTUNE	7-10	79419656	99.7	100	97.4	✓						
2				45563332	99.7	99	98	✓						
3				82738427	99.7	99	97	✓						
4				82504203	99.8	100	98.9	✓						
5				79419665	99.6	100	99.1	✓						
6				82738435	99.8	99.3	97.3	✓						
7				85126664	stred	stred	stred	←	99.3	99	93		SN. 36131528	✓
8				80666592	99.1	98.8	98.5	✓	NEW Register Number 38562391					
9				79419692	99.6	100	97	✓						
10				85126672	99.5	94	10	←	99.4	100	96.3		SN. 35624370	✓
11				79419687	99.7	100	98	✓						
12				76041544	99.7	98.9	98.5	✓						
13				69391047	99.4	99.9	99	✓						
14				93567983	99.5	99.5	97	✓						
15				69371066	99.3	99	95.5	✓						

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

REPAIRED BY

Allen Dyer
4-6-18

10674

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFG. MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST		
1	NEPTUNE	AA	80666577	79.3	99.5	78.5	✓						
2			82738445										
3			82738445	100	100	97.1	✓						
4			82738449	99.9	99	73	✓						
5			68665228	100	100	98	✓						
6	SENSUS	SADE	51235015	97.6	99	92	✓						
7			48874317	100.1	97.5	91	✓						
8			51235106	99.9	100	78.5	✓						
9			51470822	99.9	100	97.4	✓						
10			51470723	99.3	98.5	96	✓						
11			50070695	98.3	98.5	92	✓	100.3	100	95	✓		
12													
13													
14													
15													

DATES METERS RECEIVED

METERS RECEIVED FROM

RECEIVING AGENT

REPAIRED BY

Bill Osborne
4-9-18

10828

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	METER MFG	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	50834	NEPTUNE	T-10	36612268	Stopped	Stopped	Stopped	←	98.8	100	99		S/N. 518583 ✓
2				45997601	99.6	100	97	✓					
3				42029060	99.7	100	95.5	✓					
4				46029066	99.5	100	98.7	✓					
5				85126692	100	101	99	✓					
6				80666591	99.3	100	98.5	✓					
7				94561837	99.5	100	95.8	✓					
8				76041561	Stopped	Stopped	Stopped	←	99.3	101	99		S/N. 518638 ✓
9				69391053	99.3	98.5	94.5	✓					
10				79419677	100	100	99.2	✓					
11				85126675	99.9	99.5	81	←	99.7	100	101		S/N. 42039059 ✓
12				455863327	98.7	99.9	87	←	99.5	101	100.5		S/N. 518370 ✓
13				45997614	99.7	100	99	✓					
14				82738450	99.3	100	98	✓					
15				69391012	Stopped	Stopped	Stopped	←	99	100.5	100		S/N. 518555 ✓

WEST CARROLLTON

REPAIRED BY Dillon Dyer
10/18/18

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

10829

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST		
1	WEST CARROLL	T10	85126651	99.6	99.8	99.8	✓						
2			74327924	99.1	100.3	97	✓						
3			85126706	99.3	98	86	✓	99.4	99	99		SN. 518552	✓
4			45997618	99.8	101	99.5	✓						
5			79419676	99.7	100	94	✓						
6			85176673	99.1	100	96	✓						
7			45997597	99.3	100	98.2	✓						
8			69391075	99.4	98.5	96	✓						
9			74327951	98.8	99	95.2	✓						
10			76041572	99.7	100	96	✓						
11			80666622	99.3	99.1	97	✓						
12			68665292	99	99.8	97.5	✓						
13			69391076	Stand	Stand	Stand	←	99	99	100		SN. 518649	✓
14			85126669	Stand	Stand	Stand	←	99.1	100	100		SN. 518503	✓
15			69391042	Stand	Stand	Stand	←	99.3	100	100.5		SN. 518536	✓

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Alfonso Dyer
 10/19/18

10830

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS				PARTS	
				FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST		
1	7087A	NEPTUNE	710	3661231	stagn	stagn	stagn	←	99.2	100	99.5	✓	SN 508140
2				82504206	stagn	stagn	stagn	←	99.7	100	99	✓	SN 76742246
3				82738425	99.5	100	96.2	✓					
4				68665311	98.9	100	97	✓					
5				80666616	99.3	99	95	✓					
6				74327934	99.2	99	98	✓					
7				68665194	99.2	100	98.5	✓					
8				67648669	stagn	stagn	stagn	←	99.5	100	98.5	✓	SN 518732
9				74867689	stagn	stagn	stagn	←	99.7	100	99	✓	SN 76742246
10				79419664	stagn	stagn	stagn	←	99.3	100.5	100	✓	SN 518508
11				80666557	99.6	100	49	←	98.6	99.5	98.5	✓	SN 518632
12				80666590	99.6	100	95.5	✓					
13				45997610	99.3	100.8	95	✓					
14				46617420	98.8	99.5	91	✓					
15				93567778	99.2	100	93.5	✓					

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____
 REPAIRED BY Robert Cooper
 10/19/18

10831

DYER METER SERVICE LLC

1300 Bracht Road
 Corinth, KY 41010
 859/824-6067

	METER SIZE	METER MFG	METER MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS						
					FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST	FAST FLOW	MED. FLOW	SLOW FLOW	AVG. TEST			
1	75/74	WEST LAUNCH	T-10	38562392	99.7	100	97	✓							
2				85126704	99.9	100	95.9	✓							
3				45997609	99.7	100	99.5	✓							
4				76041548	99.7	99	98.5	✓							
5				82738443	99.4	99.8	98.8	✓							
6				45997616	99.6	100	99.3	✓							
7				45563334	99.5	100	99	✓							
8				8512686	99.9	98.9	93.5	✓							
9				79419661	99.4	99	97	✓							
10				45997593	99.7	100	97.5	✓							
11				82504204	100.1	100	98.2	✓							
12				80666551	99.1	100	98	✓							
13				46029065	99	100	99.5	✓							
14				82504200	Speed	Speed	Speed	←							
15				45997612	99.5	98.5	99	✓							
															SN. S18736 ✓

DATES METERS RECEIVED _____
 METERS RECEIVED FROM _____
 RECEIVING AGENT _____

REPAIRED BY

Dustin Beyer
 10/19/18

10832

DYER METER SERVICE LLC

1300 Bracht Road
Corinth, KY 41010
859/824-6067

METER SIZE	METER MFG	METER MFG	MFG MODEL	SERIAL NUMBER	BEFORE REPAIR TEST RESULTS				AFTER REPAIR TEST RESULTS						
					FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST	FAST FLOW	MED FLOW	SLOW FLOW	AVG TEST			
1	3/4" NPT	76041566	TD		99.8	100	99.8	✓							
2	3/4" NPT	7432795	★		99.6	100.5	98	✓							2- 3/4" Reg. 1/4"
3	3/4" NPT	85126660	★		100	99.2	83	✓	99	100	100	SA-318588			Bottoms
4	3/4" NPT	85126666	★		99.2	99	stayed	✓	99.2	100	99	SA-318712	✓		
5		74327937			99.1	100	94.5	✓							
6		45563326			99.7	100	94	✓							
7		46682763	★		99.5	98.8	96	✓							
8		82738441			99.9	99.5	95.5	✓							
9		68665219			99.8	100	96	✓							
10		80666572			99.4	100	94.5	✓							
11		80666631			99	101	96	✓							
12		82738438	✓		99.7	100	99	✓							
13															
14															
15															

DATES METERS RECEIVED _____
METERS RECEIVED FROM _____
RECEIVING AGENT _____

REPAIRED BY

Dylan Dyer
10/22/10

**West Carroll Water District
Case No. 2019-00041
Requests for Information contained in
Appendix C to the Commission's Order entered March 12, 2019**

17. Refer to the water utility's response to the March 12 Order, Item 23. For water utilities that do not utilize supervisory control and data acquisition (SCADA) technology within its system, state the reasons why the water utility does not utilize SCADA technology within its system.

Response:

Not applicable. West Carroll utilizes SCADA.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

18. Refer to the water utility's response to the March 12 Order, Item 23. For water utilities that do not utilize telemetry within its system, state the reasons why the water utility does not utilize telemetry within its system.

Response:

Not applicable. Telemetry is part of the SCADA system.

**West Carroll Water District
Case No. 2019-00041
Requests for Information contained in
Appendix C to the Commission's Order entered March 12, 2019**

19. Refer to the water utility's response to the March 12 Order, Item 26.
 - a. For water utilities that currently utilize master meter zones in leak detection, state how the data from the zone meters is used to reduce water loss and whether the water utility has a sufficient number of zone meters to monitor its entire system.
 - b. For water utilities that currently do not utilize master meter zones in leak detection, state with specific detail whether doing so would assist in the water utility's water loss reduction efforts or why it would not.

Response:

- a. Master meter zones are somewhat beneficial to assess the magnitude of a leak and to identify the general area of the leak. West Carroll calculates the total usage from all of the customer meters behind a master meter and compares that value to the master meter value. It is helpful if the time period for the customer meters is close to the master meter. Adjustments to customer bills should also be considered because they can skew the analysis. As a practical matter, narrowing the search area is always helpful in detecting leaks. West Carroll is currently evaluating the cost of installing additional master meter zones.
- b. Not applicable.

**West Carroll Water District
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Commission Staff's Second Request for Information issued May 3, 2019**

20. Refer to the water utility's response to the March 12 Order, Item 31.
- a. Provide the approximate hourly rate for the water utility's general manager/superintendent for the calendar years 2017 and 2018 utilizing actual hours worked, or if by salary by dividing the monthly salary by the standard 173.3 hours worked per month.
 - b. Provide the job title and job description for the general manager/superintendent from the water utility's handbook, if such a handbook exists. If the water utility does not currently have a handbook, provide the job title and a detailed job description for the general manager/superintendent that includes job duties.

Response:

- a. Not applicable. West Carroll does not have employees.
- b. Not applicable. West Carroll does not have employees.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

21. Refer to the water utility's response to the march 12 Order, Item 35. For water utilities that have not mapped their distribution area for service lines and connections, provide specific detail of the process of how the water utility locates its service lines and connections.
- a. State the process for water utility responses to 811 calls for line locates.
 - b. Provide an approximate date of completion of the water utility to map their entire distribution system for service lines and connections.

Response:

- a. Not applicable. West Carroll has mapped its facilities. Please refer to West Carroll's Response 35 to Commission Staff's First Request for Information.
- b. See response to part a above.

**West Carroll Water District
Case No. 2019-00041
Requests for Information contained in
Appendix C to the Commission's Order entered March 12, 2019**

22. Refer to the water utility's response to the March 12 Order, Item 37a. For water utilities that have not requested prosecution of water theft (a.k.a. theft of services) by either the county attorney or commonwealth attorney's office, state the reasons why such requests have not been made.

Response:

West Carroll has previously prosecuted for theft in the past using the services of the County Attorney's office, but has only had to do so twice in the last ten years (October 2012 and September 2010). There have been no instances of theft discovered since January 1, 2017.

**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

23. Refer to the water utility's response to the March 12 Order, Item 38. For a water utility that has stated in the affirmative that a leak adjustment is permitted, provide the current leak adjustment rate and applicable tariff page from the water utility's tariff on file with the Commission.

Response:

The current leak adjustment rate is \$1.84 per 1000 gallons which are based on calculations listed on the attached tariff.

Q23
Witness

For: Carroll County-Carrollton KY

P.S.C. No. 1

ORIGINAL SHEET NO. 12

REPLACING SHEET NO. 12

WEST CARROLL WATER DISTRICT

RULES AND REGULATIONS

than 2% slow as indicated by the intermediate value of the standard test, an economic analysis will be conducted to determine if the cost of the three (3) additional test is warranted. If the cost of additional testing is not warranted, no adjustments will be made to the Customer's bill.

10. WATER BILL ADJUSTMENT:

If test results in a Customers meter show an average error greater than two percent (2%) fast or slow, or if a Customer has been incorrectly billed for any other reason, except in an instance where the District has filed a verified complaint with the appropriate law enforcement agency alleging fraud or theft by a Customer, the District shall immediately determine the period during which the error has existed, and shall recompute and adjust the Customers bill to either provide a refund to the Customer or collect an additional amount of revenue from the under bill Customer. The District shall re-adjust the account based upon the period during which the error is known to have existed. If the period during which the error existed cannot be determined with reasonable precision, the time period shall be estimated using such data as elapsed time since the last meter test, if applicable, and historical usage date for the Customer. If the date is not available, the average usage of similar Customer loads shall be used for comparison purposes in calculating the time period. If the Customer and the District are unable to agree on an estimate of the time period during which the error existed, the commission shall determine the issue. In all instances of Customer over billing, the Customer account shall be credited for the over billing, the Customers account shall be credited or the overbilled amount refunded at the discretion of the Customer within thirty (30) days after final meter test results. The District shall not require Customer repayment of any underbilling to be made of a period shorter than a period coextensive with the underbilling.

Water leaks on customers lines are subject to an adjustment if the leak bill is 200 units or more above the normal monthly bill and evidence of leak can be verified. To determine adjustment amount: Calculate normal usage plus 200 units at approved rate. Remaining usage will be calculated at the suppliers wholesale rate to the District. Customer will be allowed only 1 leak adjustment per year.

N

DATE OF ISSUE: _____

DATE EFFECTIVE: _____

ISSUED BY: Walter Brumby
Signature of Officer

TITLE: Chairperson
**PUBLIC SERVICE COMMISSION
OF KENTUCKY
EFFECTIVE
2/25/2006
PURSUANT TO 807 KAR 5:011
SECTION 9 (1)**
By [Signature]
Executive Director

ADDRESS: P.O. Box 269 Carrollton, Kentucky 41008

Witness: Bill Osborne Carrollton, KY
Community, Town or City

FOR Carroll Co. - Carrollton, KY
PSC KY NO. 1
15th Revised SHEET NO. 1
CANCELLING PSC KY NO. 1
14th Revised SHEET NO. 1

P.S.C. KY. NO. 1
Original SHEET NO. 1A
CANCELLING P.S.C. KY. NO. 1
SHEET NO. _____

West Carroll Water District
(Name of Utility)

West Carroll Water District
(Name of Utility)

RATES AND CHARGES

RATES AND CHARGES

A: MONTHLY WATER RATES

<u>All Meter Sizes</u>		
First	2,000 gallons	\$29.37 minimum bill (I)
Next	3,000 gallons	10.24 per 1,000 gallons (I)
Next	5,000 gallons	9.23 per 1,000 gallons (I)
Next	10,000 gallons	8.21 per 1,000 gallons (I)
Over	20,000 gallons	7.23 per 1,000 gallons (I)

B. DEPOSIT:

\$50.00

DATE OF ISSUE April 24, 2018
Monthly/Date/Year
DATE EFFECTIVE April 24, 2018
Monthly/Date/Year
ISSUED BY [Signature]
Monthly/Date/Year
(Signature of Officer)
TITLE CHAIRPERSON
BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. 2017-00244 DATED 4/24/2018

KENTUCKY PUBLIC SERVICE COMMISSION Gwen R. Pinson Executive Director <i>Gwen R. Pinson</i> EFFECTIVE <u>4/24/2018</u> PURSUANT TO 807 KAR 6:011 SECTION 9 (1)
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DATE OF ISSUE July 11, 2005
Month / Date / Year
DATE EFFECTIVE SEPTEMBER 1, 2005
Month / Date / Year
ISSUED BY [Signature]
Month / Date / Year
(Signature of Officer)
TITLE Chairperson
BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. _____ DATED _____

PUBLIC SERVICE COMMISSION OF KENTUCKY EFFECTIVE <u>9/1/2005</u> PURSUANT TO 807 KAR 6:011 SECTION 9 (1) By <u>[Signature]</u> Executive Director

FOR Carroll Co. - Carrollton, KY
PSC KY NO. 1
1st Revised SHEET NO. 1B
CANCELLING PSC KY NO. _____
Replacing Original SHEET NO. 1B

FOR Carroll Co. - Carrollton, KY
PSC KY NO. 1
1st Revised SHEET NO. 1C
Replacing Original SHEET NO. 1C

WEST CARROLL WATER DISTRICT
(NAME OF UTILITY)

WEST CARROLL WATER DISTRICT
(NAME OF UTILITY)

RATES & CHARGES

RATES & CHARGES

C. METER CONNECTION/TAP-ON CHARGES:

<u>5/8 Inch X 3/4 Inch</u>	<u>\$1,160.00</u>	<u>(I)</u>
<u>All Larger Meters</u>	<u>Actual Cost</u>	

D. SPECIAL NON-RECURRING CHARGES:

Connection/Turn On Charge	\$40	(I)
Late Payment Penalty	10%	
Field Collection Charge	\$40	(I)
Disconnect/Reconnect Charge	\$80	(I)
Returned Check Charge	\$25	(I)
Service Call Charge	\$40	(N)
After Hours Service Call	\$80	(N)
Meter Test Charge	\$50	(N)
Meter Relocation Charge	Actual Cost	(N)
Equipment Damage Charge	Actual Cost	(N)

Note: Fee for service connections that are over 50' in length or require stream crossings, railroad crossings or other extraordinary expense may be based on actual cost of installation with approval from the West Carroll Water Board. (C)

NOTE: Regular working hours for the utility's maintenance staff is 8:00am to 4:00pm Monday through Friday, excluding holidays. Upon customer request, and subject to availability of maintenance staff, services may be performed outside regular working hours at the after hours rate. (T)

DATE OF ISSUE February 23, 2012
MONTH / DATE / YEAR
DATE EFFECTIVE _____
MONTH / DATE / YEAR
ISSUED BY [Signature]
MONTH / DATE / YEAR
(Signature of Officer)
TITLE Chairperson
BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. _____ DATED _____

KENTUCKY PUBLIC SERVICE COMMISSION JEFF R. DEROUEN EXECUTIVE DIRECTOR TARIFF BRANCH <i>Bunt Halley</i> EFFECTIVE <u>4/1/2012</u> PURSUANT TO 807 KAR 6:011 SECTION 9 (1)
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DATE OF ISSUE February 23, 2012
MONTH / DATE / YEAR
DATE EFFECTIVE _____
MONTH / DATE / YEAR
ISSUED BY [Signature]
MONTH / DATE / YEAR
(Signature of Officer)
TITLE Chairperson
BY AUTHORITY OF ORDER OF THE PUBLIC SERVICE COMMISSION
IN CASE NO. _____ DATED _____

KENTUCKY PUBLIC SERVICE COMMISSION JEFF R. DEROUEN EXECUTIVE DIRECTOR TARIFF BRANCH <i>Bunt Halley</i> EFFECTIVE <u>4/1/2012</u> PURSUANT TO 807 KAR 6:011 SECTION 9 (1)
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**West Carroll Water District
Case No. 2019-00041
Commission Staff's Second Request for Information issued May 3, 2019**

24. Refer to the water utility's response to the March 12 Order, Item 44. For utilities that responded that they currently do not have flushing equipment, state whether its board of commissioners or directors has ever discussed the purchase of flushing equipment to improve the water utility's system. Provide any applicable board minutes as an attachment to this request.

Response:

Not applicable. West Carroll uses flushing equipment.