

#### **GERALD WUETCHER**

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November 3, 2021

Ms. Cynthia C. Thompson, Esq. 202 E. Riverside Drive Augusta, Kentucky 41002

Mr. M. Todd Osterloh Sturgill, Turner, Barker & Moloney, PLLC 333 West Vine Street Suite 1400 Lexington, Kentucky 40507-1801 VIA ELECTRONIC MAIL AND CERTIFIED MAIL

Re: Request for Payment of Testing Services

Dear Ms. Thompson and Mr. Osterloh:

Bracken County Water District ("Bracken District") respectfully requests payment of \$9,900 from the City of Augusta ("Augusta") in the form of a billing credit on Bracken District's next monthly bill for water service as required by Paragraph 6 of the Parties' Agreement of May 10, 2021.

On May 10, 2021, Augusta and Bracken District entered into an agreement to resolve issues present in Public Service Commission Case No. 2020-00277. This agreement was subsequently filed with and approved by the Public Service Commission.

Paragraph 6 of the Agreement provides:

Testing of Pumps. Bracken District may at its own expense conduct tests on the efficiency of the well pumps and the high service pumps at the Augusta Water Treatment Plant. Testing shall be performed at a reasonable time and in a reasonable manner so as not to interfere with the water treatment plant's operation. Augusta shall cooperate in the scheduling of such tests and shall not take any actions that would unreasonably interfere with the tests. Bracken District shall provide Augusta with a copy of the test results. If the test results show a variance in any pump's efficiency

Cynthia C. Thompson, Esq. M. Todd Osterloh, Esq. November 3, 2021 Page 2

that is greater than 20 percent from the 2021 gallon-per-minute results listed in Appendix A, Augusta shall be responsible for 50 percent of the cost to perform the tests. In that event, Bracken District shall furnish a copy of the invoice for testing services and a request for payment and Augusta will issue a credit to Bracken District's next monthly bill for wholesale water service for the requested amount. [Emphasis added.]

Since the execution and approval of the Agreement, Bluegrass Engineering PLLC ("Bluegrass Engineering") at Bracken District's request and expense has conducted tests on the efficiency of the well pumps and the high service pumps at the Augusta Water Treatment Plant. The results of these tests are enclosed as Enclosure 1. The results of these tests show the efficiency of four of the Augusta Water Treatment Plant's pumps varies more than twenty percent from the test results set forth in Appendix A of the Agreement of May 10, 2021. For your reference, the earlier test results set forth in Appendix A to the Agreement are enclosed as Enclosure 2.

The total cost of the tests performed on the Augusta Water Treatment Plant's pumps was \$19,800. The invoice for those testing services is enclosed as Enclosure 3.

Sincerely,

Stoll Keenon Ogden PLLC

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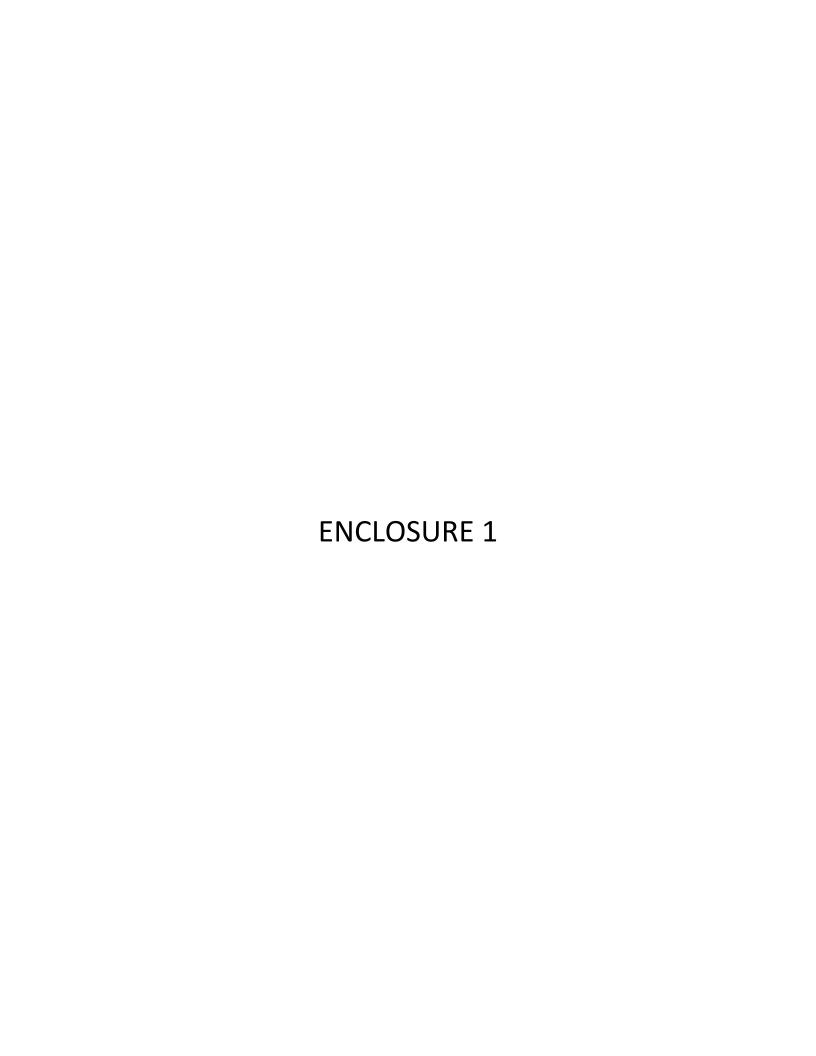
Gerald E. Wuetcher

**GEW** 

3 Encls

- 1-Test Results
- 2- Appendix A
- 3- Invoice for Testing Services

Cc: Mr. Anthony Habermehl (e-mail) PSC Case File No. 2020-00277

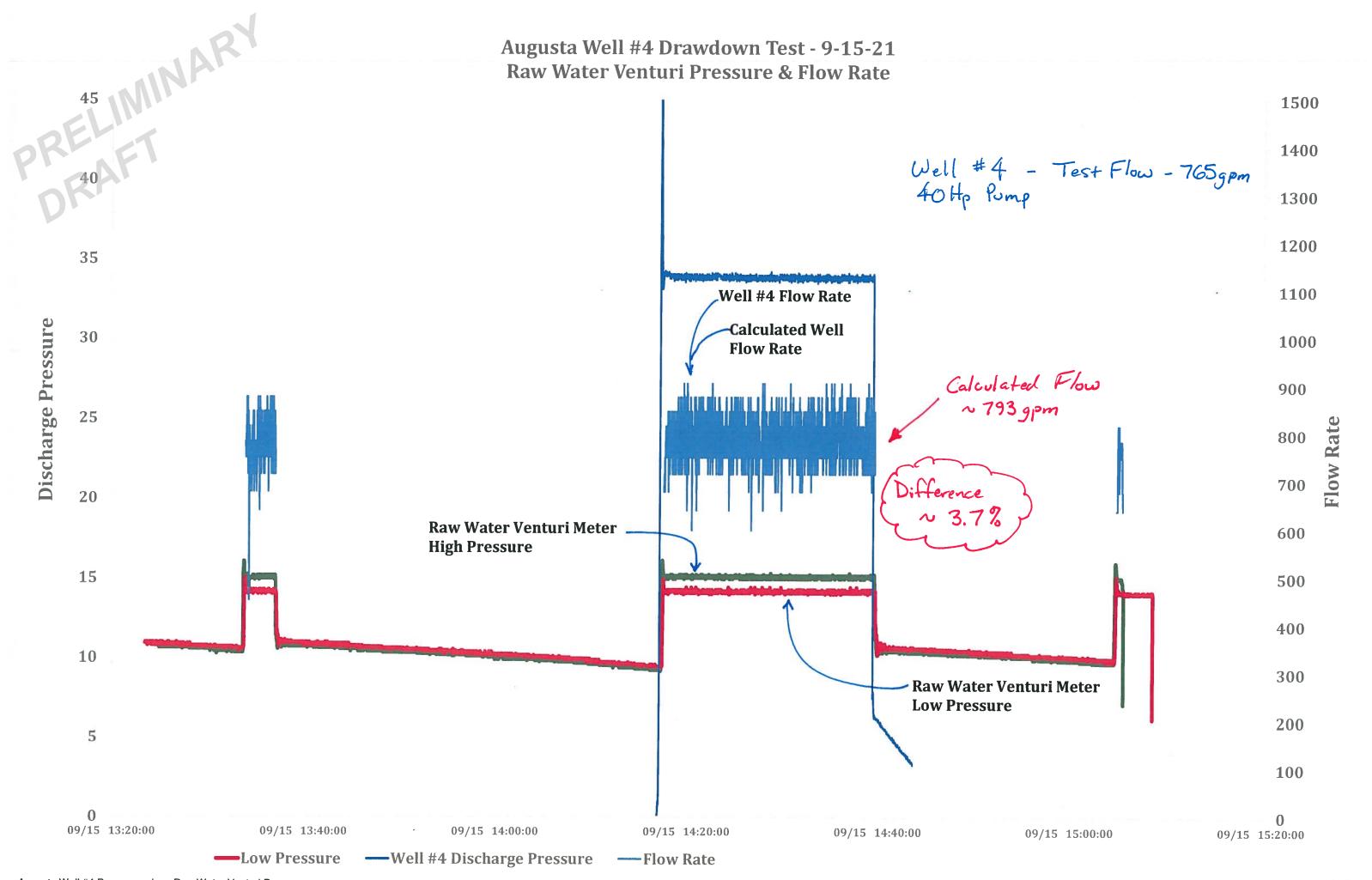


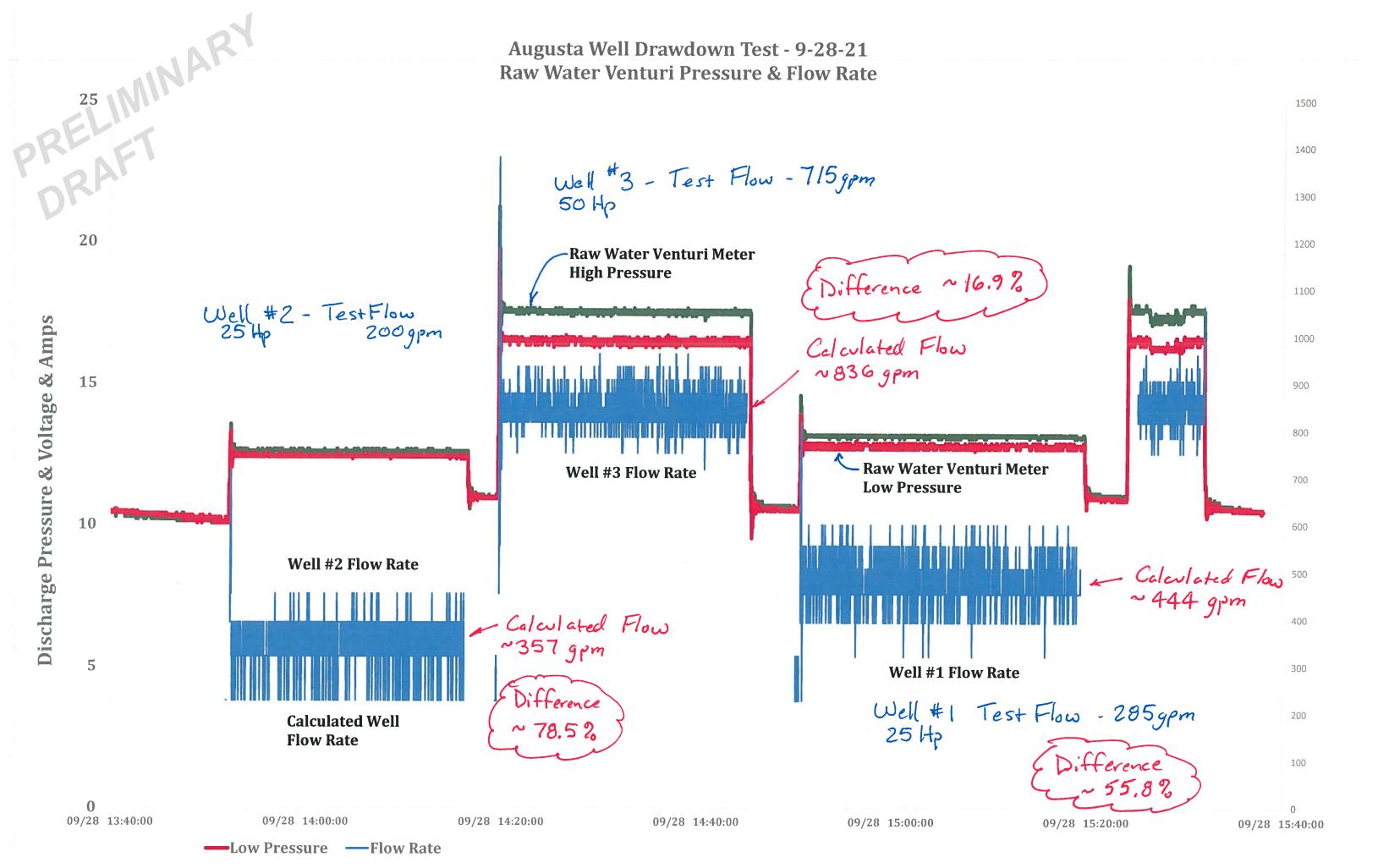
# City of Augusta - High Service Pump Test

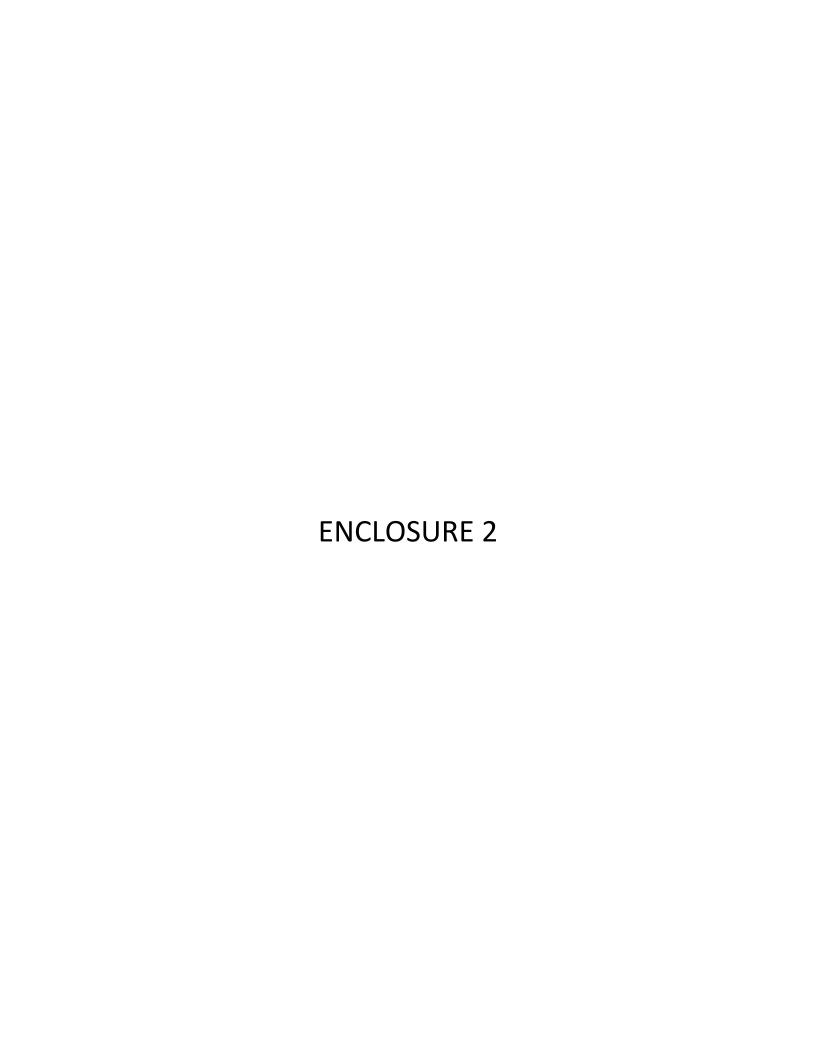
		•	•	-			
Pump #2 Start - 2:40							Pumping
11/1/1						Drop in	Rate per 5
		Time	Level	Time	Level	Level	min.
Pump #2 Start - 2:40	2:40:00 PM	44418.6111	19.0765	2:40:00 PM	19.077		
Pump #2 Start - 2:40 Pump #2 Stop - 3:25 Pump Run Time =	3:25:00 PM	44418.6424	18.1422	2:45:00 PM	18.974	0.103	255.35
		0.0313		2:50:00 PM	18.867	0.107	266.27
			Drop in Clearwell Level	2:55:00 PM	18.765	0.101	252.12
Pump Run Time =	45	minutes	0.9343	3:00:00 PM	18.653	0.113	279.44
				3:05:00 PM	18.548	0.105	259.57
Volume in Clearwell =	265,985			3:10:00 PM	18.447	0.101	251.37
Clearwell Depth (excluding sumps) =	21.41666667			3:15:00 PM	18.344	0.103	255.10
Volume per foot of depth =	12,419.53			3:20:00 PM	18.243	0.102	252.36
Volume per inch of depth =	1,034.96			3:25:00 PM	18.141	0.101	251.62
Voluem per 0.01 foot of depth =	124.20						
Pump #2 Pumping Rate =	257.9	GPM		45	Average Pum	oing Rate =	258.13
Pump #2 DESIGN Rate =	500	GPM				<b>J</b>	
Pump #2 - 2021 TEST Rate =	476	GPM					
•		GPIVI					
% Difference =	-45.8%						
							Pumping
						Drop in	Rate per 5
5 "4 0 4 0 5	0.50.00.514	Time	Level	Time	Level	Level	min.
Pump #1 Start - 3:50	3:50:00 PM	44418.6597	18.0284	3:50:00 PM	18.028		
Pump #1 Stop - 4:35	4:35:00 PM	44418.6910	17.1384	3:55:00 PM	17.941	0.088	218.34
		0.0313		4:00:00 PM	17.836	0.105	260.81
			Drop in Clearwell Level	4:05:00 PM	17.743	0.093	229.76
Pump Run Time =	45	minutes	0.8900	4:10:00 PM	17.642	0.101	251.87
				4:15:00 PM	17.541	0.101	249.63
Volume in Clearwell =	265,985			4:20:00 PM	17.438	0.103	255.10
Clearwell Depth (excluding sumps) =	21.41666667			4:25:00 PM	17.340	0.099	245.66
Volume per foot of depth =	12,419.53			4:30:00 PM	17.237	0.102	254.10
Volume per inch of depth =	1,034.96			4:35:00 PM	17.139	0.098	243.92
Voluem per 0.01 foot of depth =	124.20						
Pump #1 Pumping Rate =	245.6	GPM		45	Average Pum	oing Rate =	245.47
Pump #1 DESIGN Rate =	500	GPM			-	-	
Pump #1 - 2021 TEST Rate =		GPM					
•	476	GPW					
% Difference =	-48.4%						

## **Bracken County Water District - High Service Pump Test**

Pump #2 Start - 2:48							Dumning	Bracken Co. W	/D Clearwell Lev	el		
							Pumping Rate per 5				Rise in	
. 61		Time	Level	Time	Level	Drop in Level	_	Time		Level	Level	
Pump #2 Start - 2:48	2:48:00 PM	44426.6167	19.6580	2:48:00 PM	19.658	Drop in Level	*******	2:48:00 PM	44426.62	7.5600	20401	
Pump #2 Start = 2.46	3:38:00 PM	44426.6514	17.1709	2:53:00 PM	19.422	0.236	587.20	3:38:00 PM		9.1800	1.62	
1 ump #2 dtop 3.30	0.00.00 T W	0.0347	Drop in Clearwell	2:58:00 PM	19.165			0.00.00 T W	44420.00	3.1000	1.02	
		0.0017	Level	3:03:00 PM	18.914			Bracken Clear	well Dimension			
Pump Run Time =	50	minutes	2.4871	3:08:00 PM	18.668	0.246		Pump Room =		allons per foot		
			-	3:13:00 PM	18.412			Clearwell Area =		allons per foo		
Volume in Clearwell =	265,985			3:18:00 PM	18.167	0.245		Total Volume =		jallons pel foo		
Clearwell Depth (excluding sumps) =	21.41666667			3:23:00 FM	17.918	0.249	617.50					
Volume per foot of depth =	12,419.53			3:28:00 PM	17.672	0.247	612.53		Increase in Volu	ume Rate =	610.0 GPM	
Volume per inch of depth =	1,034.96			3:33:00 PM	17.427	0.245	608.81					
Voluem per 0.01 foot of depth =	124.20			3:38:00 PM	17.171	0.256	635.38					
				12:50:00 AM	#N/A							
Pump #2 Pumping Rate =	617.8	GPM		50	Average P	umping Rate =	617.80	GPM Bracken Co. W	/D Clearwell Lev	el		
Pump #2 DESIGN Rate =	700	GPM						9.180000305				
Pump #2 - 2021 TEST Rate =	650	GPM						9.31499958	2.541.66	jallons - <i>char</i>	ge in level in the minute	
% Difference =	-5.0%		% Difference =	-11.7% D	esian Rate					prior to 3:52		
		<del>_</del> .		<u>-</u>		Duen in Level	Pumping Rate per 5				Rise in Change level du	
D.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.50.00 DM	Time	Level	Time	Level	Drop in Level	min.	Time	44400.00	Level	Level varation in telem	etry
Pump #1 Start - 3:52 Pump #1 Stop - 4:42	3:52:00 PM 4:42:00 PM	44426.6611 44426.6958	17.0655 15.0009	3:52:00 PM 3:57:00 PM	17.066 16.849		539.01	3:52:00 PM 4:42:00 PM		9.3150 * 10.6650	readings 1.35	
Pullip #1 Stop - 4.42	4.42.00 PIVI	0.0347	Drop in Clearwell	4:02:00 PM	16.639	0.217		4.42.00 PIVI	44420.70	10.0030	1.33	
		0.0347	Level	4:07:00 PM	16.433	0.216		Bracken Clear	well Dimension			
Pump Run Time =	50	minutes	2.0646	4:12:00 PM	16.226			Pump Roop =		allors per foo		
r ump rum rimo –	00	milatoo	2.00.10	4:17:00 PM	16.022			Clearwell Area =		allons per foo		
Volume in Clearwell =	265,985			4:22:00 PM	15.816			Total Volume =		allons per foo		
Clearwell Depth (excluding sumps) =	21.41666667			4.27:00 PM	15.609				-, 5	,		
Volume per foot of depth =	12,419.53			4:32:00 PM	15.410	0.199			Increase in Volu	ume Rate =	508.3 GPM	
Volume per inch of depth =	1,034.96			4:37:00 PM	15.207	0.203						
Voluem per 0.01 foot of depth =	124.20			4:42:00 PM	15.001	0.206						
Pump #1 Pumping Rate = Pump #1 DESIGN Rate = Pump #1 - 2021 TEST Rate =	512.8 700 534	GPM GPM GPM		50	Average P	umping Rate =	512.93	GPM				
% Difference =	-4.0%	2021 Test	% Difference =	<b>-26.7%</b> D	esign Rate							







## **APPENDIX A**

### Augusta Wells

<b>Design Capacity</b>
Horse Power
Well Size
1998 Test
1999 Test
2005 New Well
2011 Repair
2015 Test
2018 Repair
2021 Test

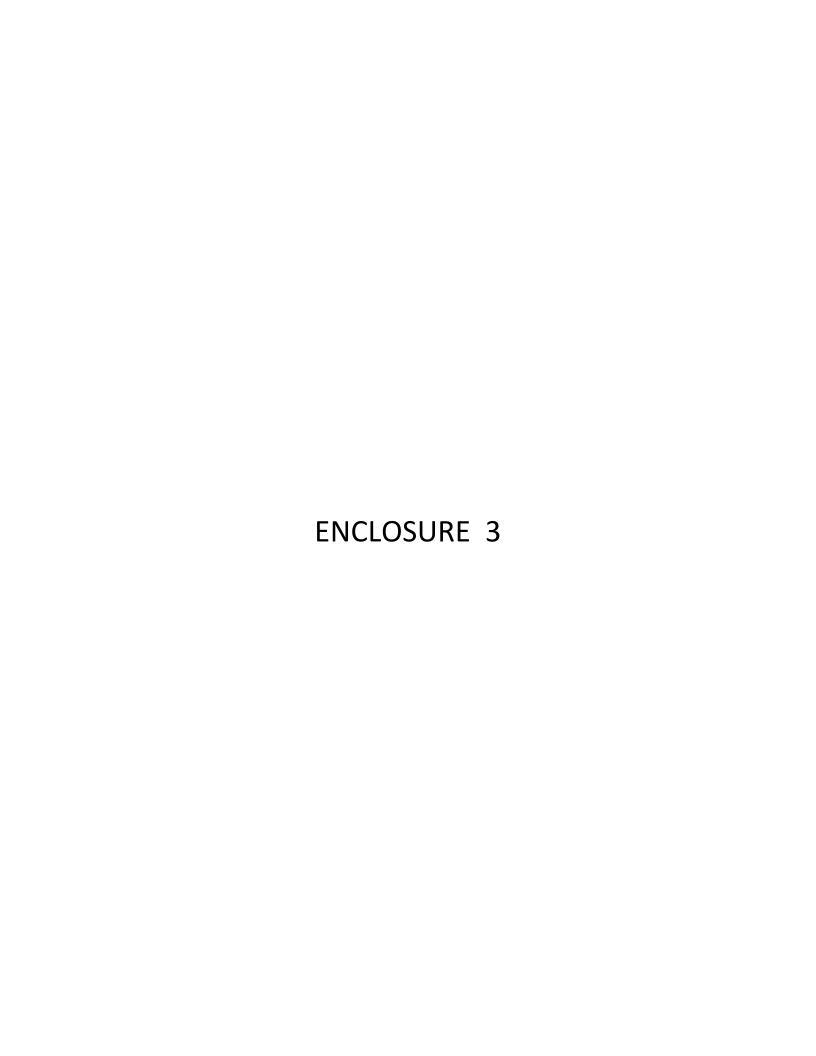
	#1	#2	#3	#4				
	GPM	GPM	GPM	GPM				
Ì	350	250	500	800				
	25	25	50	40				
	10"	10"	20"	20"				
	-	343	•	-				
	351	-						
	-	-	-	800				
	-	-	500	-				
	182	136	440	735				
	350	-	-	-				
	285	200	715	765				
	81.4%	80.0%	143.0%	95.6%				

Pump Performance

Design GPM 2021 Test

Pump Performance

BCWD		BCWD	Augusta	Augusta		
HS #1		HS #1	HS #1	HS #2		
	700	700	500	500		
*	534	650	476	476		
	76.3%	92.9%	95.2%	95.2%		





#### INVOICE

Invoice Date:

10/20/21

CLIENT:

**Bracken County Water District** 1324 Brooksville Germantown Road Brooksville, Kentucky 41004

Invoice No.

2021-074

Proj. No.

21034

Job Description: Billing Period:

Miscellaneous Engineering Services - Augusta WTP Testing Services August 3, 2021 thru October 15, 2021

Preliminary Services		Total Fee	% Complete		To	otal Earned to Date		Amount Paid to Date	Aı	nount Due to Date
Planning & Study			100.00%	Ħ	\$	-	П	24"11	\$	
Total Preliminary Services	\$	-	#DIV/0!	П	\$	-		\$ -	\$	-
Design & Construction Services		Total Fee	% Complete		To	otal Earned to Date		Amount Paid to Date	Aı	mount Due to Date
Engineering Design	<del></del>		- Gompleto	Н			H	Dute	<del> </del>	Date
Design			100.00%	Н	\$	_			\$	_
Bidding Services			100.00%	Н	\$	_			\$	_
Construction Administration	- 1		100.00%	Ш	\$	_	H		\$	_
Inspection Services	1		100.00%	Ш	\$	_	۱		\$	_
Total Design & Construction Services	\$	-	#DIV/0!	Ц	\$	-		\$ -	\$	-
			%	Ħ	To	otal Earned to	Ī	Amount Paid to	Aı	mount Due to
Additional Services	-	Total Fee	Complete	Ш		Date		Date		Date
High Service Pump, Well Pump and	\$	19,800	100.00%	П	\$	19,800.00	٦		\$	19,800.00
Clearwell Testing				П	\$	-			\$	
				П	\$	-			\$	-
Total Additional Services	\$	19,800	100.00%	П	\$	19,800.00		\$ -	\$	19,800.00
Total	\$	19,800.00		um ch	\$	19,800.00		\$ -	\$	19,800.00

PLEASE MAKE CHECK PAYABLE TO:

Bluegrass Engineering, PLLC

Remit to:

Bluegrass Engineering, PLLC

PO Box 1657

Georgetown, Kentucky 40324

ORIGINAL

AMOUNT PAID 99 Ch20% Mn. 199

City of Augusta ones 1/2