

2014-00251

RECEIVED

JUL 11 2014

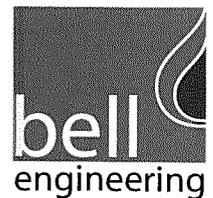
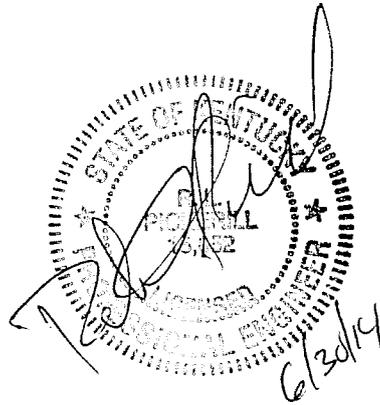
PUBLIC SERVICE  
COMMISSION

# Final Engineering Report

## Cerulean Area Water System Improvements

Barkley Lake Water District  
Trigg County, Kentucky

June, 2014



# Final Engineering Report

## Cerulean Area Water System Improvements

### Index

I.	Introduction .....	2
II.	Final Design .....	3
	New Water Storage Tank.....	3
	New Booster Pump Station.....	3
	Replacement of Transmission Mains.....	3
III.	Project Bidding .....	4
IV.	Project Funding.....	4
V.	Project Budget.....	5
VI.	Project Schedule.....	5
	Appendix I .....	6
	Recommendation for Award.....	6
	Certified Bid Tabulations.....	6
	Appendix II .....	7
	Current Rates and Charges.....	7
	Proposed Rates and Charges.....	7

# **Final Engineering Report**

## **Cerulean Area Water System Improvements**

### **I. Introduction**

The Barkley Lake Water District (BLWD) desires to provide more reliable water service to the Cerulean portion of their service area. The existing tank, booster pump station, and transmission lines were constructed in the late 1970's and although the system was adequate at the time, higher water demand due to growth in the area, and increased maintenance issues due to age, are making it increasingly difficult and costly for the BLWD to operate and maintain the system in a reliable manner. The current system is undersized, aging, and in need of upgrades and replacements to allow the BLWD to continue to supply an adequate, safe, reliable water supply for its customers in this area.

A new water storage tank is proposed to provide additional capacity and also to increase system pressures in the service area. A new Booster Pump station is also proposed in order to supply the new tank, and will also have the benefit of replacing the out-dated, existing booster pump station. Replacement of existing transmission lines with new, larger lines is also proposed in order to help alleviate supply inadequacies near the farthest reaches of the system.

These improvements would serve to benefit approximately 400 customers in the Cerulean area by way of increased supply, increased pressure, and reliability of the system. Currently, the booster pump station in Cerulean runs 24 hours per day to provide service to customers in the area. Therefore, any interruptions due to equipment failure or loss of electrical power will result in a loss of service to a significant number of customers. The proposed improvements should reduce the number of service interruptions through upgrades of the undersized and aged equipment with more efficient, modern equipment.

The project contained a new section of transmission main along Cobb Road, which would have allowed for a cross-country water main to be taken out of service.

However, this component has been eliminated from the project due to laying conditions and the expectation that this would have exceeded the funds available.

## **II. Final Design**

### **New Water Storage Tank**

The Barkley Lake Water District is proposing to improve water service to existing customers, provide increased pressure and improved water quality, which would affect approximately 400 customers. The proposed 300,000-gallon water storage tank and approximately 1,500 LF of necessary piping, will be situated on Buffalo Knob, which lies south of KY 128. This tank would allow the system to gravity feed with booster pumps running only to maintain the tank levels.

### **New Booster Pump Station**

A new pump station and necessary piping will be constructed north of KY 124 to provide additional pressure and service to the Cerulean area. The existing pump station is aged and in need of replacement. The proposed pump station will be needed for filling the new water storage tank, in order to supply the pressure zone without the need for continuous pump operation.

### **Replacement of Transmission Mains**

The project will replace deteriorated and undersized water lines on Main Street and KY 624 to provide additional pressure and service to the Cerulean area. The new water mains will improve service to residents throughout the Cerulean Community by helping to alleviate restrictions in the area. Currently, most of Main Street is supplied by a 3” water main, which also supplies most of the Northern half of the service area. The additional pipe for each road is listed below:

<u>Road Name</u>	<u>Length [ft]</u>	<u>Line Size [in]</u>
Main Street	1,260	6
KY 624	4,300 / 100	6 / 3

### **III. Project Bidding**

Construction bids for this work were received and opened on June 3, 2014. The work was divided into two (2) contracts, with Contract #1 being for the line work and pump station, while Contract #2 was for the tank work. The low bidder for Contract #1 was United Pipeline Inc., 1660 Carter Lane, Bowling Green, Kentucky. The bid was \$452,535.00. The low bidder for Contract #2 was Kentucky Glass Lined Tanks, 3203 Georgetown Road, Lexington, Kentucky. The bid was \$368,498.00.

Therefore, the total bid for construction was \$821,033.00.

### **IV. Project Funding**

Funding for this project is as-follows:

USDA RUS Grant:	\$275,000
USDA RUS Loan:	\$825,000
Total Funding:	\$1,100,000

## V. Project Budget

The budget for the project, updated to reflect Bid Prices and actual expenses, where realized is included below:

### OPINION OF PROBABLE PROJECT COST REVISED AFTER BID

#### CERULEAN AREA WATER SYSTEM IMPROVEMENTS & 300,000 GALLON TANK BARKLEY LAKE WATER DISTRICT TRIGG COUNTY, KENTUCKY

Construction: Contract 586-12-01	\$452,535.00
Construction: Contract 586-12-02	\$368,498.00
Administration & Legal Expenses	\$20,000.00
Land, Structures, Rights of Way, Appraisals, Permits	\$10,000.00
Engineering: Design / Bidding (7.33%)	\$60,166.00
Engineering: Construction Admin (1.83%)	\$15,041.00
Engineering: Resident Project Representative (5.96%)	\$48,934.00
Engineering: Other (Geotechnical & PER)	\$15,000.00
Interest During Construction	\$34,000.00
Environmental / Archaeological	\$7,000.00
Contingencies (Approx 5% of Construction)	\$68,826.00
<b>Total Opinion of Probable Project Costs (OPPC):</b>	<b>\$1,100,000.00</b>

## VI. Project Schedule

The anticipated schedule for the project is included below:

1. Finish Design Complete
2. Advertise for Bids Complete
3. Bid Opening Complete
4. Begin Construction September 1, 2014
5. End Construction March 1, 2014
6. Close-Out Project April 1, 2014

# **Appendix I**

**Recommendation for Award**

**Certified Bid Tabulations**

# engineering

June 9, 2014

Mr. Scott Bridges  
Chairman  
Barkley Lake Water District  
P.O. Box 308  
Cadiz, Kentucky 42211

Subject: **Recommendation for Award**  
**Contract 586-12-01**  
Water System Improvements  
Cerulean, Trigg County, Kentucky

Dear Mr. Bridges,

We are pleased to submit our recommendation for the subject contract. After your bid opening on June 3, 2014, Bell Engineering reviewed and tabulated all bids received. We enclose one copy of the Bid Tabulation for your review and acceptance as desired.

Contractor interest in your project was satisfactory with three (3) bids being submitted. The project low bid totaled \$452,535.00 compared to Bell Engineering's Opinion of Probable Construction Cost of \$470,680.00. The low bid was \$18,145 (4.0%) above the Engineer's As-Designed Opinion of Probable Cost. Bids are summarized as follows:

### *SUMMARY OF KEY BID RESULTS*

BIDDER RANK	BIDDER NAME	BID AMOUNT	DIFF. ABOVE LOW
1	United Pipeline, Inc	\$452,565.00	Not Applicable
2	Walter Martin Excavating	\$548,325.00	\$95,760.00 (21.2%)
3	Twin State Utilities, Inc	\$649,335.00	\$196,770.00 (43.5%)

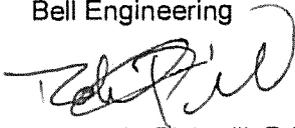
At the time of the bid opening, the low bidder, United Pipeline provided a listing of past and current construction projects. Bell Engineering contracted the Owner's representative associated with several of these projects to better ascertain the Contractor's abilities. All respondents expressed a favorable opinion of the Contractor and indicated work performed by this Contractor was satisfactory.

The amount of any contract award should be in accordance with available monies. Assuming sufficient funds are available for construction of the entire project, we recommend the Barkley Lake Water District award the project to United Pipeline.

Mr. Scott Bridges  
June 9, 2014  
Page 2

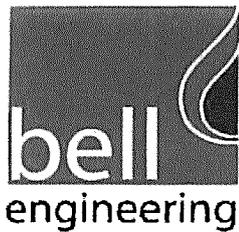
We will be happy to meet with you and other board members to discuss bid results at your convenience, if desired. Should you have any questions about this or any other matter, please do not hesitate to call.

Sincerely,  
Bell Engineering

A handwritten signature in black ink, appearing to read "R. Pickerill", written over a faint, illegible stamp or background.

Robert L. Pickerill, P.E.  
Project Manager

Enclosure



June 9, 2014

Mr. Scott Bridges  
Chairman  
Barkley Lake Water District  
P.O. Box 308  
Cadiz, Kentucky 42211

Subject: **Recommendation for Award**  
**Contract 586-12-02**  
Cerulean 300,000 Gallon Water Storage Tank  
Cerulean, Trigg County, Kentucky

Dear Mr. Bridges,

We are pleased to submit our recommendation for the subject contract. After your bid opening on June 3, 2014, Bell Engineering reviewed and tabulated all bids received. We enclose one copy of the Bid Tabulation for your review and acceptance as desired.

Contractor interest in your project was satisfactory with three (3) bids being submitted. The project low bid totaled \$368,498.00 compared to Bell Engineering's Opinion of Probable Construction Cost of \$400,000.00. The low bid was \$31,502 (7.8%) below the Engineer's As-Designed Opinion of Probable Cost. Bids are summarized as follows:

**SUMMARY OF KEY BID RESULTS**

BIDDER RANK	BIDDER NAME	BID AMOUNT	DIFF. ABOVE LOW
1	Kentucky Glass-Lined Tank	\$368,498.00	Not Applicable
2	Welding, Inc	\$414,600.00	\$46,120.00 (12.5%)
3	Caldwell Tanks (Alternate 1)	\$586,000.00	\$217,502.00 (59.0%)
4	Caldwell Tanks (Base)	\$653,000.00	\$284,502.00 (77.2%)

At the time of the bid opening, the low bidder, Kentucky Glass-Lined Tank Systems provided a listing of past and current construction projects. Bell Engineering contracted the Owner's representative associated with several of these projects to better ascertain the Contractor's abilities. All respondents expressed a favorable opinion of the Contractor and indicated work performed by this Contractor was satisfactory.

The amount of any contract award should be in accordance with available monies. Assuming sufficient funds are available for construction of the entire project, we recommend the Barkley Lake Water District award the project to Kentucky Glass Lined Tank Systems, Inc.

Mr. Scott Bridges  
June 9, 2014  
Page 2

We will be happy to meet with you and other board members to discuss bid results at your convenience, if desired. Should you have any questions about this or any other matter, please do not hesitate to call.

Sincerely,  
Bell Engineering

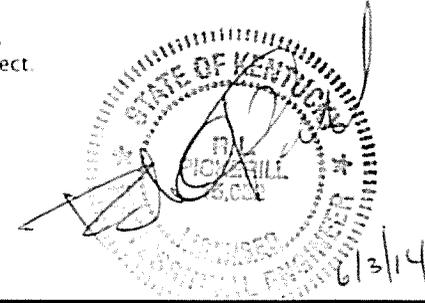
A handwritten signature in black ink, appearing to read "R. Pickerill", written over the printed name.

Robert L. Pickerill, P.E.  
Project Manager

Enclosure

We certify that the following is a true and complete tabulation of all bids received by the Barkley Lake Water District, Trigg County, Kentucky, on June 3, 2014, for the titled project.

BELL ENGINEERING

United Pipeline, Inc. 4627 Gamaliel Road Tompkinsville, Kentucky 42167	Walter Martin Excavating, Inc. 501 Darby Creek Road, Suite 18 Lexington, Kentucky 40509	Twin States Utilities & Excavation, Inc. P.O. Box 14 Mt. Hermon, Kentucky 42157
--	---	---

Item No.	Item	Quantity	Unit	United Pipeline, Inc.		Walter Martin Excavating, Inc.		Twin States Utilities & Excavation, Inc.	
				Unit Price	Total	Unit Price	Total	Unit Price	Total
If the Contract is to be awarded, it will be awarded to the lowest responsive, responsible Base Bidder whose evaluation by the OWNER indicates to the OWNER that the award will be in the best interest of the Project.									
<b>DIVISION "A"</b>									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	1,020	L.F.	\$18.00	\$18,360.00	\$29.00	\$29,580.00	\$30.00	\$30,600.00
2.	6-Inch Class 350 Ductile Iron Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Hydrocarbon Resistant Locking Gaskets, Compact Ductile Iron, Mechanical Joint Fittings with Meg-A-Lugs, Detectable Wire, Unclassified Excavation, Complete	240	L.F.	\$50.00	\$12,000.00	\$48.00	\$11,520.00	\$50.00	\$12,000.00
3.	3/4-Inch Corporation Stop, Saddle, Furnish and Install, Complete	1	Each	\$174.00	\$174.00	\$500.00	\$500.00	\$200.00	\$200.00
4.	12-Inch x 0.250-Inch Steel Cover Pipe, Including Loading Carrier Pipe, Including Spacers and End Seals, Furnish and Install, Complete	160	L.F.	\$61.00	\$9,760.00	\$45.00	\$7,200.00	\$40.00	\$6,400.00
5.	Bore and/or Jack for 12-Inch Steel Cover Pipe, Complete Unclassified Excavation	160	L.F.	\$75.00	\$12,000.00	\$205.00	\$32,800.00	\$100.00	\$16,000.00
6.	3/4-Inch or 1-Inch Polyethylene Service Pipe, with 2-Inch PVC or PE Cover Pipe, Detectable Wire, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Unclassified Excavation, Complete, Only on Order of the Engineer	40	L.F.	\$11.00	XXXXXXXXXXXXXX	\$25.00	XXXXXXXXXXXXXX	\$30.00	XXXXXXXXXXXXXX

United Pipeline, Inc.  
4627 Gamaliel Road  
Tompkinsville, Kentucky 42167

Walter Martin Excavating, Inc.  
501 Darby Creek Road, Suite 18  
Lexington, Kentucky 40509

Twin States Utilities & Excavation, Inc.  
P.O. Box 14  
Mt. Hermon, Kentucky 42157

Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
7.	Reconnect to Existing Meter, Including Exploration, Search, All Needed Fittings, and Cut, Cap, and Block Existing Service Line, Complete, Only on Order of the Engineer	1	Each	\$606.00	XXXXXXXXXXXXXXX	\$350.00	XXXXXXXXXXXXXXX	\$1,200.00	XXXXXXXXXXXXXXX
8.	Cut into Existing 6-Inch Line, Complete	1	Each	\$1,662.00	\$1,662.00	\$1,700.00	\$1,700.00	\$1,300.00	\$1,300.00
9.	Test Meter Assembly, Furnish and Install, Complete	1	Each	\$1,709.00	\$1,709.00	\$3,500.00	\$3,500.00	\$1,500.00	\$1,500.00
10.	Concrete Sidewalk Replacement, 4 Feet Wide x 4 Inches Thick, with Resteel, Complete	10	L.F.	\$50.00	\$500.00	\$55.00	\$550.00	\$40.00	\$400.00
11.	Crushed Rock on Trench Surface (_____ L.F. x 225/2000 lbs = _____ Tons)	80	Ton	\$30.00	\$2,400.00	\$30.00	\$2,400.00	\$40.00	\$3,200.00
12.	Fiberglass Line Marker, Furnishing and Installing, Complete	6	Each	\$35.00	\$210.00	\$150.00	\$900.00	\$40.00	\$240.00
13.	2-Inch Thickness Bituminous Surface Replacement, Trench Width, on Streets, Drives, and Roads,	10	L.F.	\$45.00	\$450.00	\$40.00	\$400.00	\$40.00	\$400.00
14.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$30.00	\$300.00	\$45.00	\$450.00	\$40.00	\$400.00
15.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$30.00	\$300.00	\$35.00	\$350.00	\$40.00	\$400.00
Subtotal--Division "A"					\$59,825.00	\$91,850.00	\$73,040.00		
<b>DIVISION "B"</b>									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	4,300	L.F.	\$18.00	\$77,400.00	\$24.00	\$103,200.00	\$30.00	\$129,000.00
2.	3-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	100	L.F.	\$13.00	\$1,300.00	\$18.00	\$1,800.00	\$28.00	\$2,800.00
3.	6-Inch Ductile Iron, Mechanical Joint Resilient Seated Gate Valve, Box, Concrete Collar, Complete	1	Each	\$965.00	\$965.00	\$1,400.00	\$1,400.00	\$800.00	\$800.00
4.	3-Inch Resilient Seated Gate Valve, Box, Concrete Collar, Complete	3	Each	\$819.00	\$2,457.00	\$1,000.00	\$3,000.00	\$700.00	\$2,100.00

United Pipeline, Inc.  
4627 Gamaliel Road  
Tompkinsville, Kentucky 42167

Walter Martin Excavating, Inc.  
501 Darby Creek Road, Suite 18  
Lexington, Kentucky 40509

Twin States Utilities & Excavation, Inc.  
P.O. Box 14  
Mt. Hermon, Kentucky 42157

Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
5.	3/4-Inch or 1-Inch Polyethylene Service Pipe, with 2-Inch PVC or PE Cover Pipe, Detectable Wire, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Unclassified Excavation,	150	L.F.	\$12.00	\$1,800.00	\$26.00	\$3,900.00	\$30.00	\$4,500.00
6.	3/4-Inch or 1-Inch Polyethylene Service Pipe, Detectable Wire, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Unclassified	50	L.F.	\$6.00	\$300.00	\$25.00	\$1,250.00	\$15.00	\$750.00
7.	3/4-Inch Corporation Stop, Saddle, Furnish and Install, Complete	13	Each	\$174.00	\$2,262.00	\$350.00	\$4,550.00	\$200.00	\$2,600.00
8.	Reconnect to Existing Meter, Including Exploration, Search, All Needed Fittings, and Cut, Cap, and Block Existing Service Line, Complete	13	Each	\$606.00	\$7,878.00	\$350.00	\$4,550.00	\$1,200.00	\$15,600.00
9.	Cut into Existing 2- or 3-Inch Line, Complete	3	Each	\$1,400.00	\$4,200.00	\$1,300.00	\$3,900.00	\$1,100.00	\$3,300.00
10.	Cut, Cap, and Block Existing 2-Inch or 3-Inch Line, Complete	3	Each	\$243.00	\$729.00	\$550.00	\$1,650.00	\$1,000.00	\$3,000.00
11.	Flushing Hydrant Assembly, Furnish and Install, Complete	1	Each	\$3,917.00	\$3,917.00	\$3,800.00	\$3,800.00	\$3,500.00	\$3,500.00
12.	Crushed Rock on Trench Surface (_____ L.F. x 225/2000 lbs = _____ Tons)	80	Ton	\$30.00	\$2,400.00	\$30.00	\$2,400.00	\$40.00	\$3,200.00
13.	Fiberglass Line Marker, Furnishing and Installing, Complete	9	Each	\$35.00	\$315.00	\$150.00	\$1,350.00	\$40.00	\$360.00
14.	Extra for Riprap Stone, Only on Order of the Engineer	10	Ton	\$30.00	\$300.00	\$45.00	\$450.00	\$40.00	\$400.00
15.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$30.00	\$300.00	\$40.00	\$400.00	\$40.00	\$400.00
16.	Extra for Compacted DGA Stone, Only on Order of the Engineer	20	Ton	\$30.00	\$600.00	\$30.00	\$600.00	\$40.00	\$800.00
Subtotal--Division "B"					\$107,123.00		\$138,200.00		\$173,110.00

United Pipeline, Inc.  
4627 Gamaliel Road  
Tompkinsville, Kentucky 42167

Walter Martin Excavating, Inc.  
501 Darby Creek Road, Suite 18  
Lexington, Kentucky 40509

Twin States Utilities & Excavation, Inc.  
P.O. Box 14  
Mt. Hermon, Kentucky 42157

Item No.	Item	Quantity	Unit	United Pipeline, Inc.		Walter Martin Excavating, Inc.		Twin States Utilities & Excavation, Inc.	
				Unit Price	Total	Unit Price	Total	Unit Price	Total
<b>DIVISION "C" - KY 128 (LINE TO NEW TANK)</b>									
1.	6-Inch Class 250 (SDR 17) PVC Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Mechanical Joint Fittings, Detectable Wire, Unclassified Excavation, Complete	1,435	L.F.	\$18.00	\$25,830.00	\$32.00	\$45,920.00	\$40.00	\$57,400.00
2.	6-inch Class 350 Ductile Iron Pipe, Furnishing, Trenching, Bedding, Laying and Backfilling, Including Compact Ductile Iron, Meg-A-Lug Fittings, Pipe with Locking Gaskets, Detectable Wire, Unclassified Excavation, Complete	65	L.F.	\$50.00	\$3,250.00	\$65.00	\$4,225.00	\$57.00	\$3,705.00
3.	6-Inch Ductile Iron, Mechanical Joint Resilient Seated Gate Valve with Meg-A Lugs, Box, Concrete Collar, Complete	3	Each	\$1,013.00	\$3,039.00	\$1,400.00	\$4,200.00	\$800.00	\$2,400.00
4.	12-Inch x 0.250-Inch Steel Cover Pipe, including Loading Carrier Pipe, Including Spacers and End Seals, Furnish and Install, Complete	60	L.F.	\$61.00	\$3,660.00	\$45.00	\$2,700.00	\$40.00	\$2,400.00
5.	Bore and/or Jack for 12-Inch Steel Cover Pipe, Complete Unclassified Excavation	60	L.F.	\$75.00	\$4,500.00	\$225.00	\$13,500.00	\$140.00	\$8,400.00
6.	3/4-Inch or 1-inch Polyethylene Service Pipe, with 2-Inch PVC or PE Cover Pipe, Detectable Wire, Furnishing, Trenching, Bedding, Laying and Backfilling, or by Jacking, Unclassified Excavation,	30	L.F.	\$11.00	\$330.00	\$26.00	\$780.00	\$30.00	\$900.00
7.	3/4-Inch Corporation Stop, Saddle, Furnish and Install, Complete	3	Each	\$174.00	\$522.00	\$350.00	\$1,050.00	\$200.00	\$600.00
8.	Relocate and Reconnect Existing Meter, Including Exploration, New Corporation Stop, Saddle, Search, All Needed Fittings, and Cut, Cap, and Block Existing Service Line, Complete	2	Each	\$606.00	\$1,212.00	\$350.00	\$700.00	\$1,300.00	\$2,600.00
9.	Cut Into Existing 6-Inch Line, Complete, Sta. 0+00	1	Each	\$1,881.00	\$1,881.00	\$1,700.00	\$1,700.00	\$1,300.00	\$1,300.00
10.	1-Inch Corporation Stop, Saddle, Furnish and Install, Complete	1	Each	\$190.00	\$190.00	\$500.00	\$500.00	\$250.00	\$250.00
11.	Flushing Hydrant Assembly, Furnish and Install, Complete	1	Each	\$3,917.00	\$3,917.00	\$3,800.00	\$3,800.00	\$3,500.00	\$3,500.00
12.	Crushed Rock on Trench Surface (----- L.F. x 225/2000 lbs = ----- Tons)	40	Ton	\$30.00	\$1,200.00	\$30.00	\$1,200.00	\$40.00	\$1,600.00

United Pipeline, Inc.  
4627 Gamaliel Road  
Tompkinsville, Kentucky 42167

Walter Martin Excavating, Inc.  
501 Darby Creek Road, Suite 18  
Lexington, Kentucky 40509

Twin States Utilities & Excavation, Inc.  
P.O. Box 14  
Mt. Hermon, Kentucky 42157

Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
13.	Fiberglass Line Marker, Furnishing and Installing, Complete	7	Each	\$32.00	\$224.00	\$150.00	\$1,050.00	\$40.00	\$280.00
14.	Concrete Anchor at End of Water Line, Furnish and Install, Including Inline Gate Valve, Box, Complete, per Detail	1	Each	\$867.00	\$867.00	\$3,000.00	\$3,000.00	\$1,000.00	\$1,000.00
15.	Extra for Compacted DGA Stone Surface Replacement on Drives and Roads, Only on Order of the Engineer	20	Ton	\$30.00	\$600.00	\$30.00	\$600.00	\$40.00	\$800.00
16.	Extra for Riprap, Only on Order of the Engineer	10	Ton	\$30.00	\$300.00	\$40.00	\$400.00	\$40.00	\$400.00
17.	Extra for Crushed Rock for Trench Stabilization, Only on Order of the Engineer	10	Ton	\$30.00	\$300.00	\$35.00	\$350.00	\$40.00	\$400.00
18.	Extra for Erosion Control Dam, Only on Order of the Engineer	1	Each	\$700.00	\$700.00	\$3,600.00	\$3,600.00	\$250.00	\$250.00
Subtotal--Division "C"					\$52,522.00	\$89,275.00	\$88,185.00		
<b>DIVISION "D" - BOOSTER PUMPING STATION</b>									
For the complete construction as shown on plan sheets and specifications of a water booster pumping station, complete, as specified and/or shown on the Drawings, including excavation, regrade, valves, telemetry, piping, conduits, pumps, site work, flushing hydrants, line markers, concrete work, crushed stone, security fence, gate, access road, electrical and control work, and all other items of work necessary for a complete and functional facility;				L.S.	\$186,165.00	L.S.	\$183,000.00	L.S.	\$270,000.00
Subtotal--Division "D"					\$186,165.00	\$183,000.00	\$270,000.00		
<b>DIVISION "E" - TELEMETRY RELOCATION</b>									
For the complete telemetry relocation from the existing Cerulean Tank to the new Cerulean Tank on KY 128 and related telemetry at the new water booster pumping station on KY 124, complete, as specified and/or shown on the Drawings, including telemetry, piping, conduits, electrical and control work, and all other items of work necessary for a complete and functional facility;				L.S.	\$46,900.00	L.S.	\$46,000.00	L.S.	\$45,000.00
Subtotal--Division "E"					\$46,900.00	\$46,000.00	\$45,000.00		

United Pipeline, Inc.  
4627 Gamaliel Road  
Tompkinsville, Kentucky 42167

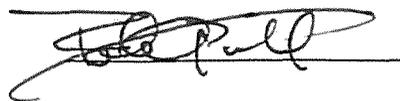
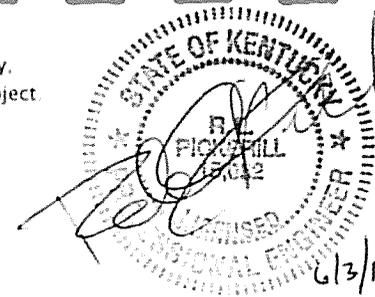
Walter Martin Excavating, Inc.  
501 Darby Creek Road, Suite 18  
Lexington, Kentucky 40509

Twin States Utilities & Excavation, Inc.  
P.O. Box 14  
Mt. Hermon, Kentucky 42157

Item No.	Item	Quantity	Unit	Unit Price	Total	Unit Price	Total	Unit Price	Total
<b>SUMMARY</b>									
	DIVISION "A"				\$59,825.00		\$91,850.00		\$73,040.00
	DIVISION "B"				\$107,123.00		\$138,200.00		\$173,110.00
	DIVISION "C"				\$52,522.00		\$89,275.00		\$88,185.00
	DIVISION "D"				\$186,165.00		\$183,000.00		\$270,000.00
	DIVISION "E"				\$46,900.00		\$46,000.00		\$45,000.00
	<b>TOTAL - CONTRACT 586-12-01</b>				<b>\$452,535.00</b>		<b>\$548,325.00</b>		<b>\$649,335.00</b>

We certify that the following is a true and complete tabulation of all bids received by the Barkley Lake Water District, Trigg County, Kentucky, on June 3, 2014, for the titled project

BELL ENGINEERING

Item No.	Item	Quantity	Unit	Welding, Inc. P.O. Box 6007 Charleston, West Virginia 25362		Kentucky Glass-Lined Tank Systems, Inc. P.O. Box 13370 Lexington, Kentucky 40583		Caldwell Tanks, Inc. 4000 Tower Road Louisville, Kentucky 40219			
				Unit Price	Total	Unit Price	Total	Unit Price	Total		
<b>SPECIAL INSTRUCTIONS TO BIDDERS</b>											
Bidders must bid all divisions for the bid to be responsive. All work specified and/or shown on the Drawings shall be completed by the CONTRACTOR and all costs for a complete, functional project shall be included in the appropriate section listed below.											
<b>DIVISION "A" - NEW WATER STORAGE TANK</b>											
For furnishing, erecting, painting, and disinfecting a 300,000 gallon water storage tank, concrete foundation, connecting piping, site work, fencing and accessories, and miscellaneous work as planned and specified, complete;											
<b>Alternate No. 1</b>				L.S.		\$407,000.00		L.S. N/A		L.S. \$613,000.00	
A 300,000 gallon, glass-lined, bolted steel tank in lieu of a welded steel tank.				L.S.		No Bid		L.S. \$350,373.00		L.S. \$546,000.00	
<b>DIVISION "B" - UNIT PRICE ITEMS</b>											
The following unit prices will apply to changes in work only when ordered by the Engineer and approved by the Owner. Unit prices will be used to adjust the Contract price for work added and/or deleted during construction.											
1.	Compacted Dense Graded Aggregate, In Place	25	Ton	\$10.00	\$250.00	\$25.00	\$625.00	\$50.00	\$1,250.00		
2.	SPR No. 57, Crushed Stone Fill, In Place	25	Ton	\$10.00	\$250.00	\$20.00	\$500.00	\$50.00	\$1,250.00		
3.	Extra Cast Iron or Ductile Iron Fittings, Not Planned but Ordered by the Engineer (Flanged or Mechanical Joint)	1,000	Lbs	\$1.00	\$1,000.00	\$5.00	\$5,000.00	\$4.00	\$4,000.00		
4.	Extra Earth Excavation	50	C.Y.	\$10.00	\$500.00	\$30.00	\$1,500.00	\$125.00	\$6,250.00		
5.	Compacted Earth Fill, In Place	50	C.Y.	\$10.00	\$500.00	\$30.00	\$1,500.00	\$100.00	\$5,000.00		

Welding, Inc.  
P.O. Box 6007  
Charleston, West Virginia 25362

Kentucky Glass-Lined Tank Systems, Inc.  
P.O. Box 13370  
Lexington, Kentucky 40583

Caldwell Tanks, Inc.  
4000 Tower Road  
Louisville, Kentucky 40219

Item No.	Item	Quantity	Unit	Welding, Inc.		Kentucky Glass-Lined Tank Systems, Inc.		Caldwell Tanks, Inc.	
				Unit Price	Total	Unit Price	Total	Unit Price	Total
6.	Class 4000 Concrete, In Place (Forms and	50	C.Y.	\$100.00	\$5,000.00	\$150.00	\$7,500.00	\$425.00	\$21,250.00
7.	Extra Forms for Concrete	100	Sq. Ft.	\$1.00	\$100.00	\$15.00	\$1,500.00	\$10.00	\$1,000.00
SUBTOTAL DIVISION "B"					\$7,600.00		\$18,125.00		\$40,000.00
<b>SUMMARY</b>									
DIVISION "A" - NEW WATER STORAGE TANK					\$407,000.00		\$350,373.00		\$613,000.00
DIVISION "B" - UNIT PRICE ITEMS					\$7,600.00		\$18,125.00		\$40,000.00
<b>TOTAL BID-CONTRACT 586-12-02</b>					\$414,600.00		\$368,498.00		\$653,000.00
								Total Bid--	
								Alternate No. 1	\$586,000.00

## **Appendix II**

**Current Rates and Charges**

**Proposed Rates and Charges**

CURRENT RATES AND CHARGES  
EFFECTIVE: AUGUST 17, 2010

CERULEAN AREA WATER SYSTEM IMPROVEMENTS &  
300,000 GALLON TANK  
BARKLEY LAKE WATER DISTRICT  
TRIGG COUNTY, KENTUCKY

<u>5/8" Water Consumption</u>			<u>Rates</u>		
First	2,000	Gallons	@	\$19.88	Minimum
Next	98,000	Gallons	@	\$6.70	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.45	per 1,000 Gallons
Over	500,000	Gallons	@	\$3.98	per 1,000 Gallons
<u>1" Water Consumption</u>			<u>Rates</u>		
First	4,000	Gallons	@	\$33.28	Minimum
Next	98,000	Gallons	@	\$6.70	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.45	per 1,000 Gallons
Over	500,000	Gallons	@	\$3.98	per 1,000 Gallons
<u>1-1/2" Water Consumption</u>			<u>Rates</u>		
First	8,000	Gallons	@	\$60.08	Minimum
Next	92,000	Gallons	@	\$6.70	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.45	per 1,000 Gallons
Over	500,000	Gallons	@	\$3.98	per 1,000 Gallons
<u>2" Water Consumption</u>			<u>Rates</u>		
First	15,000	Gallons	@	\$106.98	Minimum
Next	85,000	Gallons	@	\$6.70	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.45	per 1,000 Gallons
Over	500,000	Gallons	@	\$3.98	per 1,000 Gallons
<u>4" Water Consumption</u>			<u>Rates</u>		
First	25,000	Gallons	@	\$173.98	Minimum
Next	75,000	Gallons	@	\$6.70	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.45	per 1,000 Gallons
Over	500,000	Gallons	@	\$3.98	per 1,000 Gallons

PROPOSED RATES AND CHARGES  
 CERULEAN AREA WATER SYSTEM IMPROVEMENTS &  
 300,000 GALLON TANK  
 BARKLEY LAKE WATER DISTRICT  
 TRIGG COUNTY, KENTUCKY

<u>5/8" Water Consumption</u>			<u>Rates</u>		
First	2,000	Gallons	@	\$20.55	Minimum
Next	98,000	Gallons	@	\$6.92	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons
<u>1" Water Consumption</u>			<u>Rates</u>		
First	4,000	Gallons	@	\$34.39	Minimum
Next	96,000	Gallons	@	\$6.92	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons
<u>1-1/2" Water Consumption</u>			<u>Rates</u>		
First	8,000	Gallons	@	\$62.09	Minimum
Next	92,000	Gallons	@	\$6.92	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons
<u>2" Water Consumption</u>			<u>Rates</u>		
First	15,000	Gallons	@	\$110.56	Minimum
Next	85,000	Gallons	@	\$6.92	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons
<u>4" Water Consumption</u>			<u>Rates</u>		
First	25,000	Gallons	@	\$179.81	Minimum
Next	75,000	Gallons	@	\$6.92	per 1,000 Gallons
Next	400,000	Gallons	@	\$5.63	per 1,000 Gallons
Over	500,000	Gallons	@	\$4.11	per 1,000 Gallons