

CONSULTING ENGINEERS

November 30, 2023

Roger Shaw, Chairman Brookville Municipal Authority 18 Western Avenue, Suite A Brookville, PA 15825

RE: Water & Wastewater Treatment Chemical Bids 2024 Calendar Year Engineer's Recommendation

Dear Roger,

Pursuant to the recent bids received on November 14, 2023, relative to the Water and Wastewater Treatment Chemicals and subsequent detailed vetting process of the respective low bidders, please allow the following to serve as our letter of recommendation and review of the chemicals meeting the bid specifications.

Gwin, Dobson and Foreman, Inc. (GD&F) recommends the following suppliers to be awarded per chemical:

Chlorine (150 lbs. Cylinders)

- Award Chlorine Gas Cylinders to UNIVAR USA, Inc. in the amount of \$251.30 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Polyaluminum Chloride Liquid (Stern PAC) - "BULK"

- Award SternPAC Coagulant to UNIVAR USA, Inc. in the amount of \$34.70 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Hydrofluorosilicic Acid (Fluoride), in Drums

- Award Fluoride to SAL Chemical in the amount of \$41.95 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Sodium Permanganate (Chemical Oxidant), in Drums

- Award Sodium Permanganate to SAL Chemical in the amount of \$159.00 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Brookville Municipal Authority
Water & Wastewater Treatment Chemical Bids 2023 Calendar Year
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Citric Acid (50%) (Membrane Cleaning), in Drums

- Award Citric Acid to SAL Chemical in the amount of \$98.00 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Liquid Caustic Soda (20%), "BULK"

- Award BULK Caustic Soda to Chemstream, Inc. in the amount of \$10.93 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Liquid Caustic Soda (20%), in Drums

- Award DRUMS Caustic Soda to Chemstream, Inc. in the amount of \$19.93 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

Sodium Hypochlorite (Disinfectant), in Drums

- Award Sodium Hypochlorite to SAL Chemical in the amount of \$24.93 /cwt
- This supplier, via documentation provided within their bid package, coupled with review of their chemical information is able to provide the chemical as specified.

The estimated bid quantities and the recommended bids above result in an estimated chemical cost of \$85,807.05 for the calendar year 2024. This is an estimated 11.5% decrease in chemical costs from the 2023 calendar year.

We trust this information adequately addresses the Authority's request for recommendation. Should the Authority have any questions, please do not hesitate to contact our office at your convenience.

Respectfully Submitted, GWIN, DOBSON & FOREMAN, INC.

Steven J. Gibson, PE Senior Project Engineer

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SJG/sjg

09051/Annual Chemical Bids/2023/ChemicalBidRecommendation 11-30-23.doc

cc: Aaron Haines, BMA

File

TABULATION OF BIDS

BROOKVILLE MUNICIPAL AUTHORITY TREATMENT PLANT CHEMICALS FOR 2024

BID CERTIFICATION

I hereby certify that the following amounts are a correct and accurate tabulation of the bids received on November 14, 2023 prior to 3:00 PM by the Brookville Municipal Authority, Treatment Plant Chemicals for 2024, publicly opened and read aloud on November 14, 2023 after 3:00 PM.

Steven J. Gibson, P.E. Senior Project Engineer

(SEAL)

REGISTERED

PROFESSIONAL

STEVEN JAY GIBSON

ENGINEER
PE084368

BROOKVILLE MUNICIPAL AUTHORITY TREATMENT PLANT CHEMICALS FOR 2024 Bid Receipt: November 14, 2023; 3:00 PM Bid Opening: November 14, 2023; after 3:00 PM

BIDDER	CHLORINE (Disinfectant) (Cylinders)	STERNPAC COAGULANT (Polyaluminum Chloride)	HYDROFLUORO- SILICIC ACID (Fluoride)	SODIUM PERMANGANATE (20%) (Oxidant) (Fe, Mn)	CITRIC ACID (50%) (Membrane Cleaning)	LIQUID CAUSTIC SODA (20%) (Alkalinity) (Bulk)	LIQUID CAUSTIC SODA (20%) (Alkalinity) (Drums)	SODIUM HYPOCHLORITE (Disinfectant) (Drums)
UNIVAR USA, Inc. 627 Sugar Run Road Altoona, PA 16601	\$251.30/cwt (\$376.95/cyl)	\$34.70/cwt	\$53.00/cwt	\$169.00/cwt	\$112.00/cwt	\$11.61/cwt	\$25.50/cwt	\$40.00/cwt
SAL Chemical 3036 Birch Drive Weirton, WV 26062	No Bid	No Bid	\$41.95/cwt	\$159.00/cwt	\$98.00/cwt	\$13.00/cwt	\$23.50/cwt	\$24.93/cwt (\$139.70/drum)
Kemira 4321 West 6 th St Lawrence, KS 66049	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid
USALCO, LLC 2601 Cannery Avenue Baltimore, MD 21226	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid
Barber's Chemical 950 Main Street Sharpsville, PA 16150	\$253.00/cwt (\$379.50/cyl)	No Bid	No Bid	No Bid	No Bid	\$24.12/cwt (\$811.80/ 330 gal)	\$27.00/cwt (\$151.47/drum)	\$46.18/cwt (\$259.05/drum)
Chemstream, Inc. 166 Commerce Drive Stoystown, PA 15563	No Bid	No Bid	No Bid	No Bid	\$147.75/cwt	\$10.93/cwt	\$19.93/cwt	\$30.75/cwt
Kroff Chemical Company, Inc. One North Shore Center 12 Federal Street Pittsburgh, PA 15212	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid	No Bid

Denotes Low Bidder

Key:

BROOKVILLE MUNICIPAL AUTHORITY SUMMARY OF TREATMENT PLANT CHEMICALS COSTS 2018 - 2024

SODA ASH CHLORINE CO (pH/Adj.) (Disinfectant) (Po (Cylinders)		. 0 9	STERNPAC COAGULANT (Polyaluminum Chloride)	HYDROFLUORO- SILICIC ACID (Fluoride)	SODIUM PERMANGANATE (Oxidant) (Fe, Mn)	CITRIC ACID (50%) (Membrane Cleaning)	LIQUID CAUSTIC SODA (20%) (Alkalinity) (Bulk)	LIQUID CAUSTIC SODA (20%) (Alkalinity) (Drums)	SODIUM HYPOCHLORITE (Disinfectant) (Drums)
\$28.95 \$69.00 /cwt \$26.05 /cwt \$26.96 /cwt (Sal Chem) (Barber's) (Univar) (Sal	\$26.05 /cwt (Univar)		\$26.9	\$26.95 /cwt (Sal Chem)	\$106.00 /cwt (Sal Chem)	\$65.00 /cwt (Chemstream)	\$10.95 /cwt (Univar)	\$13.59 /cwt (Barber's)	\$12.00 /cwt (Chemstream)
\$34.50	\$27.05 /cwt (Univar)		\$28.40 (Sal C	\$28.40 /cwt (Sal Chem)	\$106.00 /cwt (Sal Chem)	\$64.20 /cwt (Sal Chem)	\$9.00 /cwt (Chemstream)	\$7.95 /cwt (Chemstream)	\$11.75 /cwt (Chemstream)
\$34.50 \$69.00 /cwt \$27.05 /cwt \$31.00 /cwt (Barber's) (Univar) (Univar)	\$27.05 /cwt (Univar)		\$31.00 (Univ	/cwt /ar)	\$107.00 /cwt (Univar)	\$60.00 /cwt (Chemstream)	\$6.58 /cwt (Sal Chem)	\$7.70 /cwt (Chemstream)	\$9.99 /cwt (Chemstream)
\$36.00 \$179.33 /cwt \$32.00 /cwt \$30.90 /cwt (Sal Chem) (Sal Chem)	\$32.00 /cwt (Univar)		\$30.90 / (Sal Che	cwt em)	\$159.00 /cwt (Sal Chem)	\$145.00 /cwt (Sal Chem)	\$10.83 /cwt (Univar)	\$16.50 /cwt (Sal Chem)	\$24.70 /cwt (Sal Chem)
\$41.00	\$33.70 /cwt (Univar)		\$39.00 / (Sal Che	cwt em)	\$159.00 /cwt (Sal Chem)	\$118.00 /cwt (Univar)	\$13.64 /cwt (Univar)	\$26.00 /cwt (Sal Chem)	\$32.58 /cwt (Sal Chem)
No Bid \$251.30 /cwt \$34.70 /cwt \$41.95 /cwt Solicited (Univar) (Sal Chem)	\$34.70 /cwt (Univar)		\$41.95 _, (Sal Ch	/cwt em)	\$159.00 /cwt (Sal Chem)	\$98.00 /cwt (Sal Chem)	\$10.93 /cwt (Chemstream)	\$19.93 /cwt (Chemstream)	\$24.93 /cwt (Sal Chem)

BROOKVILLE MUNICIPAL AUTHORITY STATISTICAL SUMMARY OF CHEMICAL USAGE COSTS PER ANNUAL CHEMICAL BID RESULTS

Chemical	Est. Annual Quantity	2023 Prices (per cwt)	Annual Est. Expenditure	2024 Prices (per cwt)	Annual Est. Expenditure	Percent Difference
Chlorine	5,000	\$253.00	\$12,650.00	\$251.30	\$6,900.00	-0.68
SternPAC	100,000	\$33.70	\$33,700.00	\$34.70	\$34,700.00	2.88
Fluoride	3,000	\$39.00	\$1,170.00	\$41.95	\$1,258.50	7.03
Sodium Permanganate	14,000	\$159.00	\$22,260.00	\$159.00	\$22,260.00	0.00
Citric Acid	5,000	\$118.00	\$5,900.00	\$98.00	\$4,900.00	-20.41
Caustic Soda (bulk)	100,000	\$13.64	\$13,640.00	\$10.93	\$10,930.00	-24.79
Caustic Soda (drum)	20,000	\$26.00	\$5,200.00	\$19.93	\$3,986.00	-30.46
Sodium Hypochlorite	3,500	\$32.58	\$1,140.30	\$24.93	\$872.55	-30.69
4			\$95,660.30		\$85,807.05	-11.48