

**SAN ANTONIO WATER SYSTEM PURCHASING DEPARTMENT**

Issued By: **D. Anthony Rubin**  
BID NO.: 17-17062

Date Issued: **May 22, 2017**

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**FORMAL INVITATION FOR BIDS**  
**CONTRACT FOR ONE PURCHASE AND INSTALLATION OF 500-HP HOT WATER BOILER AT**  
**THE DOS RIOS WATER RECYCLING CENTER**  
**ADDENDUM NO. 1**

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Sealed bids addressed to the Purchasing Director, San Antonio Water System, 2800 US Hwy 281 North, Administration Bldg., 5<sup>th</sup> Floor, San Antonio, TX 78212 will be received until **3:00 p.m., June 2, 2017** and then publicly opened and read aloud for furnishing materials or services as described herein below,

The San Antonio Water System Purchasing Department is willing to assist any bidder(s) in the interpretation of bid provisions or explanation of how bid forms are to be completed. Assistance may be received by visiting the Purchasing Office in the SAWS Main Office, 2800 US Hwy 281 North, San Antonio, TX 78212, or by calling (210) 233-3819.

**(Contractor's Insurance Requirements Attached)**

This invitation includes the following:

Invitation for Bids  
Terms and Conditions of Invitation for Bids

Specifications and General Requirements  
Price Schedule

The undersigned, by his/her signature, represents that he/she is authorized to bind the Bidder to fully comply with the Specifications and General Requirements for the amount(s) shown on the accompanying bid sheet(s). By signing below, Bidder has read the entire document and agreed to the terms therein.

Signer's Name: \_\_\_\_\_ Firm Name: \_\_\_\_\_  
(Please Print or Type)

Address: \_\_\_\_\_

Signature of Person Authorized to Sign Bid \_\_\_\_\_ City, State, Zip Code: \_\_\_\_\_

Email Address: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

Please complete the following:

Prompt Payment Discount: \_\_\_\_\_% \_\_\_\_\_days. (If no discount is offered, Net 30 will apply.)

Please check the following blanks which apply to your company:

Ownership of firm (51% or more):

Non-minority  Hispanic  African-American  Other Minority (specify) \_\_\_\_\_

Female Owned  Handicapped Owned  Small Business (less than \$1 million annual receipts or 100 employees)

Indicate Status:  Partnership  Corporation  Sole Proprietorship  Other (specify) \_\_\_\_\_

Tax Identification Number: \_\_\_\_\_

**To report suspected ethics violations impacting the San Antonio Water System, please call 1-800-687-1918.**

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**Saybolt Petroleum Services**  
**A Core Laboratories Company**

201 Deerwood Glen Dr  
 Deer Park, TX 77536  
 281-478-1300

San Antonio Water System Lab  
 Fred Winter  
 3225 Valley Rd  
 San Antonio, TX 78221

Report Number : 13071-151115  
 Date Reported: 4/11/2015  
 Date Received: 3/30/2015

**Analytical Report**

Sample No.: 151115-001 Sample ID Iron Sponge Inlet Date Sampled 3/24/2015 10:32:00 AM

Test	Result	Units	Method	Date	Analyst			
<b>Natural Gas Analysis</b>								
Oxygen	0.04	Mol %	GP2261ASTM1945	4/1/2015	KTN			
Nitrogen	0.36	Mol %						
Carbon Dioxide	34.04	Mol %						
Methane	65.56	Mol %						
Ethane	<0.01	Mol %						
Propane	<0.01	Mol %						
Isobutane	<0.01	Mol %						
n-Butane	<0.01	Mol %						
Isopentane	<0.01	Mol %						
n-Pentane	<0.01	Mol %						
Hexanes Plus	<0.01	Mol %						
Total	100.00	Mol %						
Molar Mass Ratio	0.88430					GP2172ASTM3588		
Relative Density	0.88659							
Compressibility Factor	0.99701							
Gross Heating Value (Dry)	662.2	BTU/CF (Ideal)						
Gross Heating Value (Dry)	664.1	BTU/CF (Real)						
Net Heating Value (Dry)	596.2	BTU/CF (Ideal)						
Net Heating Value (Dry)	598.0	BTU/CF (Real)						
Pressure Base	14.696	psia						
<b>Sulfur Speciation</b>								
Hydrogen Sulfide	<0.3	ppm v / v	ASTM D-5504	4/9/2015	JB			
Carbonyl Sulfide	0.3	ppm v / v						
Methyl Mercaptan	<0.3	ppm v / v						
Ethyl Mercaptan	<0.3	ppm v / v						
Dimethyl Sulfide	<0.3	ppm v / v						
Carbon Disulfide	0.3	ppm v / v						
Isopropyl Mercaptan	<0.3	ppm v / v						
Ethylene Sulfide	<0.3	ppm v / v						
tert-Butyl Mercaptan	<0.3	ppm v / v						
n-Propyl Mercaptan	<0.3	ppm v / v						
Ethyl Methyl Sulfide	<0.3	ppm v / v						
Propylene Sulfide	<0.3	ppm v / v						
Methyl Isopropyl Sulfide	<0.3	ppm v / v						

The analytical results, opinions, or interpretations contained in this report are based upon information and material supplied by the client for whose exclusive and confidential use this report has been made. The analytical results, opinions, or interpretations expressed represent the best judgement of Saybolt Petroleum Services. Saybolt Petroleum Services, however, makes no warranty or representation, express or implied, of any type, and expressly disclaims same with which such report is used or relied upon for any reason whatsoever. Any person relying upon this report should be aware that issuer's activities are carried out under their general terms and conditions.



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Date Sampled 3/24/2015 10:32:00 AM

Test	Result	Units	Method	Date	Analyst
Isobutyl Mercaptan	<0.3	ppm v / v			
Ethyl Sulfide	<0.3	ppm v / v			
n-Butyl Mercaptan	<0.3	ppm v / v			
Methyl n-Propyl Sulfide	<0.3	ppm v / v			
Methyl t-Butyl Sulfide	<0.3	ppm v / v			
Dimethyl Disulfide	<0.3	ppm v / v			
Methyl sec-Butyl Sulfide	<0.3	ppm v / v			
Ethyl n-Propyl Sulfide	<0.3	ppm v / v			
Diisopropyl Sulfide	<0.3	ppm v / v			
Ethyl Methyl Disulfide	0.4	ppm v / v			
Methyl Isopropyl Disulfide	<0.3	ppm v / v			
Diethyl Disulfide	0.5	ppm v / v			
Propyl Methyl Disulfide	<0.3	ppm v / v			
Methyl tert-Butyl Disulfide	<0.3	ppm v / v			
Ethyl Isopropyl Disulfide	0.4	ppm v / v			
Methyl sec-Butyl Disulfide	<0.3	ppm v / v			
Ethyl Propyl Disulfide	<0.3	ppm v / v			
Isopropyl Disulfide	<0.3	ppm v / v			
Isopropyl n-Propyl Disulfide	<0.3	ppm v / v			
Ethyl sec-Butyl Disulfide	<0.3	ppm v / v			
Benzothiophene	<0.3	ppm v / v			
Unidentified Volatile Sulfur	5.0	ppm v / v			
Sulfur, Total in Gas by Micro.	3.2	mg/kg	ASTM D-3246	3/31/2015	CB

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Report Number : 13071-151115  
Date Reported: 4/11/2015  
Date Received: 3/30/2015

### Analytical Report

Sample No.: 151115-002 Sample ID From Sponge Outlet

Date Sampled 3/24/2015 10:22:00 AM

Test	Result	Units	Method	Date	Analyst			
<b>Natural Gas Analysis</b>								
Oxygen	1.56	Mol %	GP2261ASTM1945	4/1/2015	KTN			
Nitrogen	5.57	Mol %						
Carbon Dioxide	32.34	Mol %						
Methane	60.53	Mol %						
Ethane	<0.01	Mol %						
Propane	<0.01	Mol %						
Isobutane	<0.01	Mol %						
n-Butane	<0.01	Mol %						
Isopentane	<0.01	Mol %						
n-Pentane	<0.01	Mol %						
Hexanes Plus	<0.01	Mol %						
Total	100.00	Mol %						
Molar Mass Ratio	0.89779					GP2172ASTM3588		
Relative Density	0.89990							
Compressibility Factor	0.99725							
Gross Heating Value (Dry)	611.4	BTU/CF (Ideal)						
Gross Heating Value (Dry)	613.0	BTU/CF (Real)						
Net Heating Value (Dry)	550.5	BTU/CF (Ideal)						
Net Heating Value (Dry)	552.0	BTU/CF (Real)						
Pressure Base	14.696	psia						
<b>Sulfur Speciation</b>								
Hydrogen Sulfide	<0.3	ppm v / v	ASTM D-5504	4/9/2015	JB			
Carbonyl Sulfide	<0.3	ppm v / v						
Methyl Mercaptan	<0.3	ppm v / v						
Ethyl Mercaptan	<0.3	ppm v / v						
Dimethyl Sulfide	<0.3	ppm v / v						
Carbon Disulfide	<0.3	ppm v / v						
Isopropyl Mercaptan	<0.3	ppm v / v						
Ethylene Sulfide	<0.3	ppm v / v						
tert-Butyl Mercaptan	<0.3	ppm v / v						
n-Propyl Mercaptan	<0.3	ppm v / v						
Ethyl Methyl Sulfide	<0.3	ppm v / v						
Propylene Sulfide	<0.3	ppm v / v						
Methyl Isopropyl Sulfide	<0.3	ppm v / v						

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Test	Result	Units	Method	Date	Analyst
Isobutyl Mercaptan	<0.3	ppm v / v			
Ethyl Sulfide	<0.3	ppm v / v			
n-Butyl Mercaptan	<0.3	ppm v / v			
Methyl n-Propyl Sulfide	<0.3	ppm v / v			
Methyl t-Butyl Sulfide	<0.3	ppm v / v			
Dimethyl Disulfide	<0.3	ppm v / v			
Methyl sec-Butyl Sulfide	<0.3	ppm v / v			
Ethyl n-Propyl Sulfide	<0.3	ppm v / v			
Diisopropyl Sulfide	<0.3	ppm v / v			
Ethyl Methyl Disulfide	<0.3	ppm v / v			
Methyl Isopropyl Disulfide	<0.3	ppm v / v			
Diethyl Disulfide	<0.3	ppm v / v			
Propyl Methyl Disulfide	<0.3	ppm v / v			
Methyl tert-Butyl Disulfide	<0.3	ppm v / v			
Ethyl Isopropyl Disulfide	<0.3	ppm v / v			
Methyl sec-Butyl Disulfide	<0.3	ppm v / v			
Ethyl Propyl Disulfide	<0.3	ppm v / v			
Isopropyl Disulfide	<0.3	ppm v / v			
Isopropyl n-Propyl Disulfide	<0.3	ppm v / v			
Ethyl sec-Butyl Disulfide	<0.3	ppm v / v			
Benzothiophene	<0.3	ppm v / v			
Unidentified Volatile Sulfur	2.6	ppm v / v			
Sulfur, Total in Gas by Micro.	6.3	mg/kg	ASTM D-3746	3/31/2015	CB

Approved By: \_\_\_\_\_

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M. Jean Waits  
 Supervising Chemist