



City of Broken Arrow
Meeting Agenda
Broken Arrow Municipal Authority

Chairperson Craig Thurmond
Vice Chair Scott Eudey
Trustee Mike Lester
Trustee Johnnie Parks
Trustee Debra Wimpee

Tuesday, March 6, 2018

Council Chambers

TIME: Immediately following the City Council Meeting which begins at 6:30 p.m.

1. Call to Order

2. Roll Call

3. Consideration of Consent Agenda

- A. [18-105](#) Approval of Broken Arrow Municipal Authority Meeting Minutes of February 20, 2018
- Attachments:** [2-20-2018 BAMA Minutes](#)
- B. [18-312](#) Acknowledgement of submittal of the Broken Arrow Municipal Authority's Wastewater Discharge Monitoring Report for the month of January 2018
- Attachments:** [WWTP DMR Jan 2018](#)
 [WWTP MOR Jan 2018](#)
- C. [18-17](#) Approval of the Broken Arrow Municipal Authority Claims List for March 06, 2018
- Attachments:** [03-06-18 BAMA CL](#)

4. Consideration of Items Removed from Consent Agenda

5. Public Hearings, Appeals, Presentations, Recognitions, Awards

6. General Authority Business

- A. [18-331](#) Approval of and authorization to accept the proposal from Pennco, Inc., to extend the 45 day chemical feed pilot program for odor control and the monitoring service along the County Line sewer trunk line
- Attachments:** [Pennco Proposal Ext](#)

7. Executive Session - None

8. Adjournment

NOTICE:

If you wish to speak at this evening's meeting, please fill out a "Request to Speak" form. The forms are available from the City Clerk's table or at the entrance door. Please turn in your form prior to the start of the meeting. Topics are limited to items on the currently posted agenda, or relevant business. All cell phones and pagers must be turned OFF or operated SILENTLY during meetings. Exhibits, petitions, pictures, etc., shall be received and deposited in case files to be kept at the Broken Arrow City Hall. If you are a person with a disability and need some accommodation in order to participate in this meeting, please contact the City Clerk at 918-259-2400 Ext. 5418 to make arrangements.

POSTED this ____ day of _____, _____, at _____ a.m./p.m.

City Clerk



City of Broken Arrow

Fact Sheet

File #: 18-105, Version: 1

**Broken Arrow Municipal Authority
Meeting of: March 6, 2018**

To: Chairman and Authority Members
From: Office of the City Clerk
Title: Approval of Broken Arrow Municipal Authority Meeting Minutes of February 20, 2018

Background: Minutes recorded for the Broken Arrow Municipal Authority meeting.

Cost: \$0

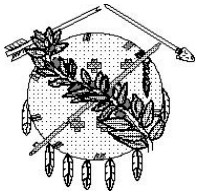
Prepared By: Lisa Blackford, City Clerk

Reviewed By: Russell Gale, Assistant City Manager of Administration
Beth Anne Childs, City Attorney

Approved By: Michael L. Spurgeon, City Manager

Attachments: Broken Arrow Municipal Authority minutes of February 20, 2018

Recommendation: Approval of the minutes of February 20, 2018 for the Broken Arrow Municipal Authority meeting



City of Broken Arrow
Minutes
Broken Arrow Municipal Authority

City Hall
220 S 1st Street
Broken Arrow OK
74012

Chairperson Craig Thurmond
Vice Chair Scott Eudey
Trustee Mike Lester
Trustee Johnnie Parks
Trustee Debra Wimpee

Tuesday, February 20, 2018

Council Chambers

1. Call to Order

Chairman Craig Thurmond called the meeting to order at approximately 8:04 p.m.

2. Roll Call

Present: 5 - Debra Wimpee, Johnnie Parks, Mike Lester, Scott Eudey, Craig Thurmond

3. Consideration of Consent Agenda

Chairman Thurmond asked if there were any items to remove from the Consent Agenda. There were none.

MOTION: A motion was made by Mike Lester, seconded by Debra Wimpee.

Move to approve the Consent Agenda

The motion carried by the following vote:

Aye: 5 - Debra Wimpee, Johnnie Parks, Mike Lester, Scott Eudey, Craig Thurmond

- A. 18-102 Approval of Broken Arrow Municipal Authority Meeting Minutes of February 6, 2018**
- B. 18-260 Acknowledgement of submittal of the Broken Arrow Municipal Authority's Water Supply Report for the month of January 2018**
- C. 18-279 Approval of and authorization to execute a Professional Consultant Agreement with Carollo Engineers, Inc., to study the operation of the 5 Million Gallon Battle Creek Water Storage Tank (Project No. 185438)**
- D. 18-277 Approval of and authorization to execute a Professional Services Agreement for Geographic Information System (GIS) mapping of arterial streets rights of way, retaining structures, and stormwater facilities (Project No. 185210)**
- E. 18-278 Approval of and authorization to execute Amendment No. 2 to Professional Consultant Agreement with Alan Plummer Associates, Inc., for assistance during construction for the City-wide Supervisory Control And Data Acquisition (SCADA) system for water and wastewater pumping facilities and Lynn Lane Wastewater Treatment Plant**
- F. 18-14 Approval of the Broken Arrow Municipal Authority Claims List for February 20, 2018**

4. Consideration of Items Removed from Consent Agenda

There were no items removed from the Consent Agenda. No action was required or taken.

5. Public Hearings, Appeals, Presentations, Recognitions, Awards

There were no Public Hearings, Appeals, Presentations, Recognitions, or Awards.

6. General Authority Business

There was no General Authority Business.

7. Executive Session

There was no Executive Session.

8. Adjournment

The meeting adjourned at approximately 8:04 p.m.

MOTION: A motion was made by Johnnie Parks, seconded by Mike Lester.

Move to adjourn

The motion carried by the following vote:

Aye: 5 - Debra Wimpee, Johnnie Parks, Mike Lester, Scott Eudey, Craig Thurmond

Attest:

Chairman

Secretary



City of Broken Arrow

Fact Sheet

File #: 18-312, Version: 1

**Broken Arrow Municipal Authority
Meeting of: 3-6-2018**

To: Chairman and Authority Members
From: Utilities Department
Title: Acknowledgement of submittal of the Broken Arrow Municipal Authority's Wastewater Discharge Monitoring Report for the month of January 2018

Background:

In an effort to provide the Authority and the Public more information with respect to our community's wastewater collection and treatment at the city's Lynn Lane Waste Water Treatment Plant, the Utilities Department staff is attaching a copy of the January 2018 Oklahoma Department of Environmental Quality (ODEQ) Discharge Monitoring Report (DMR) submitted to ODEQ on February 15, 2018.

Over the course of the month of January 2018, the total wastewater collected, treated and discharged is 121.99 million gallons (MG). The average flow was 3.93 MG.

This report will be updated on a monthly basis. Staff recommends the Authority acknowledge submittal of the Report.

Cost: No cost
Prepared By: Anthony C. Daniel, Utilities Director
Reviewed By: Utilities Department
Legal Department
Assistant City Manager-Operations
Approved By: Michael L. Spurgeon, City Manager
Attachments: Monthly Discharge Monitoring Report

Recommendation:

Acknowledge submittal of the Monthly Discharge Monitoring Report

**National Pollutant Discharge Elimination System (NPDES)
Oklahoma Department of Environmental Quality Discharge Monitoring Report (DMR)**

PERMITTEE NAME: Broken Arrow, City of
MAILING ADDRESS: NESESE11T17NR14EIM
Broken Arrow, OK 74013
FACILITY: Broken Arrow WWT
LOCATION: NESESE11T17NR14EIM
Broken Arrow, OK 74013

PERMIT NUMBER: OK0040053
MONITORING POINT: 001A

COUNTY: Tulsa

Monitoring Period: 2018-01-01 To: 2018-01-31
NO DISCHARGE FROM SITE: ()

Parameter		Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
BOD, 5-DAY (20 DEG. C)	Sample Measurement	333.31	*****		*****	10.00	12.00	19 mg/l	0	Five Per Week	COMP12
PARAM CODE: 00310	Permit Requirement	2001.6	*****	26 lbs/day	*****	30	45				
Stage Code: 1		Monthly Average				Monthly Average	Weekly Average			Five Per Week	COMP12
Effluent Gross		*****	*****		7.0	*****	7.3		0	Daily	GRAB
PH	Sample Measurement							12 S.U.			
PARAM CODE: 00400	Permit Requirement	*****	*****		6.5	*****	9.0			Daily	GRAB
Stage Code: 1					Minimum		Maximum				
Effluent Gross					*****				0	Five Per Week	COMP12
SOLIDS, TOTAL SUSPENDED	Sample Measurement	94.99	*****		*****	2.87	3.20				
PARAM CODE: 00530	Permit Requirement	2001.6	*****	26 lbs/day	*****	30	45				
Stage Code: 1		Monthly Average				Monthly Average	Weekly Average			Five Per Week	COMP12
Effluent Gross					*****				0	Daily	TOTALZ
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	Sample Measurement	3.935	4.581		*****						
PARAM CODE: 50050	Permit Requirement	Report	Report	03 MGD	*****					Daily	TOTALZ
Stage Code: 1		Monthly Average	Maximum Daily								
Effluent Gross		*****	*****		*****				0	Daily	GRAB
CHLORINE, TOTAL RESIDUAL	Sample Measurement		*****		*****		0.09				
PARAM CODE: 50060	Permit Requirement	*****	*****		*****		Instantaneous Maximum			Daily	GRAB
Stage Code: A					*****						
Disinfection, Process Complete					*****				0	Weekly	GRAB
E.COLI	Sample Measurement	*****	*****		*****	10.6	313				
PARAM CODE: 51040	Permit Requirement	*****	*****		*****			30 MPN/100mL			
Stage Code: 1					*****	Geometric Mean	Maximum Daily			Weekly	GRAB
Effluent Gross					*****				0	Monthly	COMP12
SOLIDS, TOTAL DISSOLVED-180 DEG.C	Sample Measurement	15718	*****		*****	488	488				
PARAM CODE: 70300	Permit Requirement	77929	*****	26 lbs/day	*****	1168	1168			Monthly	COMP12
Stage Code: 1		Monthly Average			*****	Monthly Average	Maximum Daily				
Effluent Gross					*****						
Name/Title of Principal Executive Officer Or Authorized Agent		I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.							Signature of Principal Executive Officer Or Authorized Agent		Telephone No
W/TP Mgr.									David Handy		918-455-4762

**National Pollutant Discharge Elimination System (NPDES)
Oklahoma Department of Environmental Quality Discharge Monitoring Report (DMR)**

PERMITTEE NAME: Broken Arrow, City of
MAILING ADDRESS: NESESES11T17NR14EIM
Broken Arrow, OK 74013
FACILITY: Broken Arrow WWT
LOCATION: NESESES11T17NR14EIM
Broken Arrow, OK 74013

PERMIT NUMBER: OK0040053
MONITORING POINT: 001A

Tulsa

COUNTY:

Monitoring Period : 2018-01-01 To: 2018-01-31
NO DISCHARGE FROM SITE: ()

Parameter	Sample Measurement	Quantity or Loading		Units	Quality or Concentration			Units	No. Ex.	Frequency of Analysis	Sample Type
		Average	Maximum		Minimum	Average	Maximum				
MERCURY, TOTAL (AS HG)	Sample	0.0016	*****	26	*****	0.000050	0.000050	28	0	Monthly	COMP12
PARAM CODE: 71900 Stage Code: 1 Effluent Gross	Permit Requirement	0.0635 Monthly Average	*****	lbs/day	*****	0.952 Monthly Average	1.9 Maximum Daily	ug/l		Monthly	COMP12
Name/Title of Principal Executive Officer Or Authorized Agent		Signature of Principal Executive Officer Or Authorized Agent								Telephone No	
WWTP Mgr.		David Handy								918-455-4762	

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

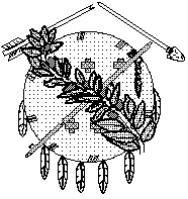


MONTHLY OPERATIONAL REPORT

City of Broken Arrow Lynn Lane Wastewater Treatment Facility

January-18

		WEATHER			INFLUENT							OXIDATION DITCH					SLUDGE				FINAL EFFLUENT															STREAM SURVEILLANCE													
Date	Day	°F	Rain	Cloud Conditions	Flow (MGD)	RAS (MGD)	°C	pH	Alk.	Sett. Solids	TSS (mg/L)	BOD (mg/L)	D.O. (mg/L)	30 Min. Sett.	SVI (ml/gm)	MLSS (mg/L)	Sl. Age (Days)	WAS (MGD)	CAKE (%)	LANDFILL (Tons)	LANDFILL (D.M. Tons)	°C	D.O. (mg/L)	TDS (mg/L)	TDS (lbs)	pH	Alk.	TSS (mg/L)	TSS (lbs)	BOD (mg/L)	BOD (lbs)	Hg	Hg (lbs.)	E.Coli	Cl2 Res	Flow (MGD)	°C Upstr.	°C Dnstr.	D.O. Upstr.	D.O. Dnstr.	pH Upstr.	pH Dnstr.	App. Upstr.	App. Dnstr.	Fec. Coli. Upstr.	Fec. Coli. Dnstr.	Hrdss.		
1	Mon	20	0.00	p. cloudy	3.822	3.403	18	7.5	283	20	244	364	1.6	300								14	8.3			7.2	149	2.00	62.47	7.00	218.63				0.01	3.745													
2	Tues	25	0.00	cloudy	3.984	3.203	17	7.6	295	21	252	351	0.8	300					12		23.07	2.69	16	8.4			7.0	161	5.00	166.13	15.00	498.40			313.0	0.01	3.984												
3	Wed	38	0.00	clear	4.117	3.256	17	7.4	286	20	348	324	0.4	320	143	2,230	6	0.214	12	40.93	4.77	16	8.4			7.3	170	3.00	114.62	15.00	573.08				0.01	4.581													
4	Thur	38	0.00	clear	3.876	3.545	17	7.6	291	23	345	230	0.3	350	180	1,940	6	0.105	13	22.38	2.82	15	8.2			7.2	165	3.00	103.41	10.00	344.69				0.01	4.133													
5	Fri	53	0.00	clear	3.774	3.456	17	7.5	277	20	254	339	0.3	350	146	2,400	10	0.124	13	63.65	8.03	16	8.3			7.3	163								0.01	3.774													
6	Sat	49	0.00	clear	3.568	3.362	19	7.2	265	21			1.4	380				0.199				14	8.3			7.2	161								0.01	3.789													
7	Sun	43	0.36	clear	3.596	3.499	17	7.5	271	20			0.6	400				0.205				17	8.4	488	15,718	7.2	145	4.00	128.84	16.00	515.35	0.00005	0.0016		0.01	3.862													
8	Mon	53	0.01	p. cloudy	4.136	3.610	17	7.3	270	20	307	286	0.3	480	211	2,270	7	0.199	10	22.18	2.15	17	8.1			7.3	152	3.00	110.84	13.00	480.30				0.01	4.430													
9	Tues	34	0.00	cloudy	3.809	3.557	17	7.5	260	19	262	388	0.3	400	178	2,250	9	0.194	12	42.76	4.98	17	8.0			7.0	146	3.00	103.01	11.00	377.69			7.0	0.00	4.117													
10	Wed	59	0.00	p. cloudy	3.720	3.404	17	7.5	283	21	294	321	0.3	340	136	2,500	9	0.196	13	43.34	5.47	17	7.8			7.2	150	3.00	100.51	10.00	335.02				0.00	4.017													
11	Thur	57	0.00	cloudy	3.800	3.358	18	7.3	250	20	490	413	0.3	350	140	2,500	5	0.212	13	40.46	5.10	17	7.7			7.3	152	2.00	69.79	10.00	348.95				0.01	4.184													
12	Fri	32	0.00	p. cloudy	3.660	3.306	17	7.3	266	21	320	458	0.6	350	132	2,650	9	0.214	13	44.09	5.56	15	8.5			7.1	148								0.00	3.800													
13	Sat	34	0.00	cloudy	3.718	3.470	19	7.3	220	20			0.6	360				0.219				16	8.5			7.1	123								0.01	3.840													
14	Sun	45	0.00	cloudy	2.959	3.442	18	7.4	261	20			1.5	350				0.230				17	8.6			7.1	118	3.00	96.85	12.00	387.41				-0.01	3.871													
15	Mon	38	0.00	cloudy	3.804	3.455	17	7.2	266	21	302	342	0.4	370				0.221	13	20.53	2.59	16	8.2			7.1	126	3.00	98.35	10.00	327.85				0.09	3.931													
16	Tues	20	0.00	p. cloudy	3.971	3.614	17	7.5	253	19	290	371	0.6	340	146	2,330	8	0.203	13	21.79	2.75	15	8.7			7.2	144	2.00	69.06	8.00	276.22			2.0	0.01	4.140													
17	Wed	31	0.00	clear	3.858	3.586	17	7.5	268	19	318	331	1.0	340	143	2,380	8	0.208	13	51.33	6.47	14	8.6			7.3	148	3.00	98.50	9.00	295.51				0.01	3.937													
18	Thur	48	0.00	clear	4.000		17	7.3	272	20	274	473	1.1	260	130	2,000	7	0.209	13	44.64	5.63	14	8.7			7.3	163	3.00	101.63	8.00	271.02				0.00	4.062													
19	Fri	56	0.00	clear	3.783	2.316	17	7.6	274	19	290	396	0.8	310	131	2,360	9	0.158	14	45.40	6.17	15	8.3			7.3	167								0.01	3.909													
20	Sat	68	0.00	p. cloudy	3.539	2.377	18	7.5	287	20			1.1	290				0.224				17	8.0			7.2	161								0.01	3.867													
21	Sun	70	0.00	cloudy	3.695	2.339	18	7.5	280	20			0.5	250				0.233				18	7.8			7.3	159	3.00	102.21	10.00	340.69				0.01	4.085													
22	Mon	57	0.00	cloudy	4.000	2.344	17	7.5	300	20	164	313	0.4	330				0.232				17	8.3			7.3	172	2.00	69.51	7.00	243.27				0.01	4.167													
23	Tues	52	0.00	clear	3.285	3.751	17	7.5	291	20	258	265	1.2	250	146	1,708	8	0.231				15	8.3			7.1	162	3.00	93.85	9.00	281.55			10.0	0.01	3.751													
24	Wed	58	0.00	clear	3.267	2.389	15	7.5	260	20	200	311	1.5	240	127	1,890	12	0.158				16	8.3			7.3	133	3.00	84.62	9.00	253.85				0.00	3.382	PARTIAL WEEKLY AVG.NO.'s												
25	Thur	66	0.00	clear	3.449	2.301	16	7.5	272	20	382	388	0.8	250	142	1,760	5	0.191	14	40.10	5.45	16	8.2			7.3	132	2.00	59.96	8.00	239.86				0.00	3.595	Date	Week No.	TSS	BOD									
26	Fri	56	0.00	cloudy	3.488	2.472	16	7.3	272	20	288	363	0.8	250	137	1,820	7	0.198	12	74.21	8.64	16	8.2			7.1	111							0.01	3.824	31-Dec	1	3.00	9.00										
27	Sat	61	0.00	clear	3.412	2.235	16	7.5	282	19			0.3	230				0.191				16	8.2			7.1	114							0.02	3.885	1-Feb	5	2.00	6.00										
28	Sun	63	0.00	clear	3.514	2.333	16	7.5	276	20			1.8	240				0.190				15	8.3			7.2	121	3.00	95.10	11.00	348.70				0.00	3.801													
29	Mon	41	0.00	cloudy	3.730	2.277	15	7.5	290	20	346	337	0.3	260	129	2,010	6	0.094	13	43.75																													



City of Broken Arrow

Fact Sheet

File #: 18-17, Version: 1

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	I NVOI CE NO	ACCOUNT NO	AMOUNT
	7/12/2017	6626	REXEL USA INC	PI 1688	S115622203003	020-5405-434.60-45 7/12/2017 TOTAL - CUMULATIVE TOTAL -	1,916.00- 1,916.00- 1,916.00-
	7/27/2017	225	SUMMIT TRUCK GROUP	PI 0129	411142490	020-0000-141.00-00 7/27/2017 TOTAL - CUMULATIVE TOTAL -	101.44 101.44 1,814.56-
	9/22/2017	90	NAPA AUTO PARTS	PI 9875 PI 9876 PI 9877	2210880764 2210880764 2210880764	020-0000-141.00-00 020-0000-141.00-00 020-0000-141.00-00 9/22/2017 TOTAL - CUMULATIVE TOTAL -	25.91 27.62 108.93 162.46 1,652.10-
	10/25/2017	6626	REXEL USA INC	PI 5814	S118292793001	020-5410-435.60-45 10/25/2017 TOTAL - CUMULATIVE TOTAL -	881.36 881.36 770.74-
	10/26/2017	47	AUTOMATIC ENGINEERING INC	PI 9602	404478	020-5415-435.40-28 10/26/2017 TOTAL - CUMULATIVE TOTAL -	1,459.06 1,459.06 688.32
	10/27/2017	9876	RI TZ/ LONE STAR SAFETY & SUPPLY	PI 9971	5488690	020-0000-141.00-00 10/27/2017 TOTAL - CUMULATIVE TOTAL -	269.74 269.74 958.06
	10/31/2017	6789	GREEN COUNTRY TESTING	PI 0104	60735	020-5410-435.30-34 10/31/2017 TOTAL - CUMULATIVE TOTAL -	1,109.00 1,109.00 2,067.06
	11/03/2017	225	SUMMIT TRUCK GROUP	PI 9816	411149056	020-0000-141.00-00 11/03/2017 TOTAL - CUMULATIVE TOTAL -	28.81 28.81 2,095.87
	12/11/2017	90	NAPA AUTO PARTS	PI 9759	2210887443	020-5405-434.60-20 12/11/2017 TOTAL - CUMULATIVE TOTAL -	18.00- 18.00- 2,077.87
	12/12/2017	6626	REXEL USA INC	PI 7668	S120059453001	020-5410-435.60-45 12/12/2017 TOTAL - CUMULATIVE TOTAL -	188.18 188.18 2,266.05
	12/13/2017	5371	PREMIER TRUCK GROUP	PI 9756	12532953	020-5410-435.40-20 12/13/2017 TOTAL - CUMULATIVE TOTAL -	1,009.15 1,009.15 3,275.20
	12/19/2017	255	SAF T GLOVE INC	PI 9972	85933100	020-0000-141.00-00 12/19/2017 TOTAL - CUMULATIVE TOTAL -	199.62 199.62 3,474.82
	12/21/2017	255	SAF T GLOVE INC	PI 9973	85936100	020-0000-141.00-00 12/21/2017 TOTAL - CUMULATIVE TOTAL -	310.00 310.00 3,784.82

FUND	020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	I NVOI CE NO	ACCOUNT NO	AMOUNT
1/12/2018		84		J D YOUNG COMPANY	PI 9887	724962	020-5205-419.60-24	3,775.00
1/12/2018		1589		SEWER EQUI PTMENT OF AMERI CA	PI 8483	0000162294	020-5415-435.60-20	3,398.38
					PI 8484	0000162294	020-5415-435.60-20	9,576.42
					PI 8485	0000162305	020-5415-435.60-20	202.81
							1/12/2018 TOTAL -	16,952.61
							CUMULATI VE TOTAL -	20,737.43
1/22/2018		225		SUMMI T TRUCK GROUP	PI 9983	411153614	020-5400-434.60-20	2,194.50
							1/22/2018 TOTAL -	2,194.50
							CUMULATI VE TOTAL -	22,931.93
1/23/2018		225		SUMMI T TRUCK GROUP	PI 9984	411153680	020-5400-434.60-20	126.02
1/23/2018		8864		USA BLUEBOOK	PI 9847	471934	020-5410-435.60-23	468.16
					PI 9848	471934	020-5410-435.60-23	390.50
					PI 9849	471934	020-5410-435.60-34	68.39
							1/23/2018 TOTAL -	1,053.07
							CUMULATI VE TOTAL -	23,985.00
1/24/2018		225		SUMMI T TRUCK GROUP	PI 0141	CM411153614	020-5400-434.60-20	244.80-
					PI 9985	CM411153614	020-5400-434.60-20	1,949.70-
					PI 9986	CM411153614/	020-5400-434.60-20	244.80
					PI 9987	CM411153680	020-5400-434.60-20	108.19-
					PI 9988	CM411153802	020-5400-434.60-20	45.00-
1/24/2018		5290		HOLLOWAY, UPDI KE AND BELLEN I N	PI 9989	411153802	020-5400-434.60-20	778.56
					PI 9637	3	020-5410-435.70-17	89.51
					PI 9638	3	020-5410-435.70-17	1,510.49
					PI 9639	3	020-5415-435.70-16	1,600.00
							1/24/2018 TOTAL -	1,875.67
							CUMULATI VE TOTAL -	25,860.67
1/25/2018		4572		LI GHTI NG I NC/ BROKEN ARROW ELEC	PI 0098	S2306789001	020-0000-141.00-00	640.71
							1/25/2018 TOTAL -	640.71
							CUMULATI VE TOTAL -	26,501.38
1/30/2018		6789		GREEN COUNTRY TESTI NG	PI 9641	61514	020-5410-435.30-34	396.00
1/30/2018		7835		UNIT ED ROTARY BRUSH CORP.	PI 9642	61514	020-5410-435.60-34	396.00
1/30/2018		10903		THE SCHEMMER ASSOCI ATES I NC	PI 9843	CI 213713	020-0000-141.00-00	116.44
1/30/2018		11119		PREMI ER TRUCK GRP/ FREI GHTLI NER	PI 9822	070420018	020-5205-419.70-16	8,000.00
					PI 9990	1259015	020-5305-438.70-02	60,841.00
							1/30/2018 TOTAL -	69,749.44
							CUMULATI VE TOTAL -	96,250.82
1/31/2018		327		HACH COMPANY	PI 9640	10816548	020-5410-435.60-34	1,745.55
1/31/2018		1589		SEWER EQUI PTMENT OF AMERI CA	PI 9982	0000162703	020-5415-435.60-20	149.78
1/31/2018		6733		CROSSLAND HEAVY CONTRACTORS I N	PI 0018	4	020-5410-435.70-15	93,537.00
					PI 0019	4-	020-5410-435.70-15	27,602.99-
1/31/2018		10417		KI MLEY- HORN & ASSOCI ATES I NC.	PI 9881	0612923000118	020-5400-434.70-16	3,924.00
							1/31/2018 TOTAL -	71,753.34
							CUMULATI VE TOTAL -	168,004.16
2/01/2018		8864		USA BLUEBOOK	PI 9867	481423	020-5410-435.60-23	105.95
							2/01/2018 TOTAL -	105.95
							CUMULATI VE TOTAL -	168,110.11

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
2/02/2018	90		NAPA AUTO PARTS	PI 9761	2210891615	020-5125-436.60-20	194.74
2/02/2018	4407		MESHEK & ASSOCIATES PLC	PI 9892	5265	020-5400-434.70-17	5,808.00
				PI 9893	5265	020-5415-435.70-17	18,392.00
2/02/2018	9892		GOODYEAR COMMERCIAL TIRE	PI 9663	2541010257	020-5125-436.60-19	820.00
2/02/2018	9962		FIRSTLINE FILTERS LLC	PI 0043	20163199	020-5100-437.60-18	79.15
				PI 0044	20163199	020-5120-437.60-18	8.20
				PI 0045	20163199	020-5405-434.60-18	34.96
				PI 0046	20163199	020-5410-435.60-18	21.91
				PI 0047	20163199	020-5415-435.60-23	3.71
2/02/2018	9994		ALAN PLUMMER ASSOCIATES INC	PI 9889	41834	020-5410-435.70-16	943.00
2/02/2018	10233		PETROLEUM TRADERS CORP	PI 9974	000693	020-0000-141.00-00	16,340.93
						2/02/2018 TOTAL -	41,006.60
						CUMULATIVE TOTAL -	209,116.71
2/05/2018	244		GREEN ACRE SOD FARMS DBA	PI 9649	108642	020-5400-434.60-80	75.00
				PI 9650	108643	020-5400-434.60-80	75.00
2/05/2018	327		HACH COMPANY	PI 9655	10822662	020-5405-434.60-34	663.41
2/05/2018	8679		CORE & MAIN	PI 0013	1409935	020-0000-141.00-00	1,766.65
						2/05/2018 TOTAL -	2,580.06
						CUMULATIVE TOTAL -	211,696.77
2/06/2018	90		NAPA AUTO PARTS	PI 9726	2210891963	020-0000-141.00-00	11.40
				PI 9727	2210891963	020-0000-141.00-00	74.19
				PI 9728	2210891963	020-0000-141.00-00	7.60
				PI 9729	2210891963	020-0000-141.00-00	27.17
				PI 9730	2210891963	020-0000-141.00-00	102.96
				PI 9731	2210891963	020-0000-141.00-00	168.56
2/06/2018	244		GREEN ACRE SOD FARMS DBA	PI 0108	108692	020-5400-434.60-80	150.00
2/06/2018	328		HAJOCA TULSA 152	PI 9670	SO12710100001	020-5410-435.60-45	110.63
2/06/2018	4270		CMC CONSTRUCTION SERVICES	PI 9596	165118	020-0000-141.00-00	4,000.00
2/06/2018	11153		EMC ELECTRICAL MECHANICAL	PI 9965	1640	020-5410-435.40-07	1,252.00
						2/06/2018 TOTAL -	5,904.51
						CUMULATIVE TOTAL -	217,601.28
2/07/2018	90		NAPA AUTO PARTS	PI 9732	2210892004	020-0000-141.00-00	58.34
				PI 9733	2210892004	020-0000-141.00-00	35.00
				PI 9734	2210892078	020-0000-141.00-00	7.60
				PI 9735	2210892079	020-0000-141.00-00	7.98
2/07/2018	786		CLIFFORD POWER SYSTEMS INC	PI 9622	INV0107150	020-5415-435.60-20	174.19
2/07/2018	4576		CHIEF SUPPLY CORPORATION	PI 9597	365974	020-0000-141.00-00	159.48
2/07/2018	8864		USA BLUEBOOK	PI 9869	486627	020-5410-435.60-34	192.00
2/07/2018	11176		VECTOR CONTROLS, LLC	PI 9870	152218	020-5405-434.60-45	262.27
						2/07/2018 TOTAL -	881.66
						CUMULATIVE TOTAL -	218,482.94
2/08/2018	244		GREEN ACRE SOD FARMS DBA	PI 9651	108650	020-5400-434.60-80	150.00
				PI 9652	108651	020-5400-434.60-80	150.00
2/08/2018	8679		CORE & MAIN	PI 0067	1429158	020-0000-141.00-00	1,017.33
2/08/2018	8846		DUNHAM S ASPHALT PLANT	PI 9895	248657	020-5305-438.60-80	154.96
						2/08/2018 TOTAL -	1,472.29
						CUMULATIVE TOTAL -	219,955.23

FUND	020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
2/09/2018	90			NAPA AUTO PARTS	PI 9736	2210892273	020-0000-141.00-00	8.55
					PI 9737	2210892273	020-0000-141.00-00	49.28
					PI 9738	2210892273	020-0000-141.00-00	26.97
					PI 9739	2210892273	020-0000-141.00-00	29.85
					PI 9740	2210892273	020-0000-141.00-00	168.88
					PI 9763	2210892238	020-5415-435.60-20	29.47
2/09/2018	130			UNITED ENGINES INC	PI 9844	2123039	020-0000-141.00-00	25.03
2/09/2018	244			GREEN ACRE SOD FARMS DBA	PI 0109	108697	020-5400-434.60-80	150.00
2/09/2018	2016			BI XBY RADIATOR INC	PI 9624	37431	020-5125-436.40-20	325.00
2/09/2018	5357			VALK MANUFACTURING COMPANY	PI 9975	0290082	020-0000-141.00-00	63.26
2/09/2018	5371			PREMIER TRUCK GROUP	PI 9807	125222786	020-5125-436.60-20	1,140.46
2/09/2018	6963			LAYCO INC.	PI 9715	1894106	020-5415-435.60-41	2,443.75
2/09/2018	9129			PROSOURCE OF TULSA LLC	PI 9803	CG810731	020-0503-415.60-18	106.80
2/09/2018	10800			READING MIDWEST DISTRIBUTION L	PI 9827	S410000231	020-5400-434.60-20	130.86
					PI 9834	S41000029	020-5410-435.60-20	225.00
							2/09/2018 TOTAL -	4,923.16
							CUMULATIVE TOTAL -	224,878.39
2/10/2018	420			APAC-CENTRAL, INC	PI 0023	7001066579	020-5305-438.60-27	699.47
							2/10/2018 TOTAL -	699.47
							CUMULATIVE TOTAL -	225,577.86
2/12/2018	8			BRENNTAG SOUTHWEST INC	PI 9620	BSW031656	020-5410-435.60-34	801.13
2/12/2018	35			A & N TRAILER PARTS INC	PI 9614	00300308	020-5115-437.60-20	3.96
2/12/2018	42			ARROW SAFE AND LOCK INC	PI 9611	71397	020-5120-437.60-23	19.50
2/12/2018	90			NAPA AUTO PARTS	PI 9765	2210892396	020-5400-434.60-20	7.54
					PI 9767	2210892413	020-5125-436.60-20	5.96
2/12/2018	225			SUMMIT TRUCK GROUP	PI 9839	411211244C	020-5125-436.40-20	382.62
2/12/2018	244			GREEN ACRE SOD FARMS DBA	PI 0110	108700	020-5400-434.60-80	150.00
					PI 0111	108701	020-5400-434.60-80	150.00
2/12/2018	377			KIMS INTERNATIONAL	PI 9710	0103196	020-5305-438.60-20	125.48
2/12/2018	399			LOCKE SUPPLY COMPANY	PI 0118	3358830300	020-5410-435.60-23	66.90
2/12/2018	452			GELICO UNIFORMS & SHOES INC	PI 9644	00230488	020-5415-435.60-10	125.00
					PI 9645	00230489	020-5305-438.60-10	125.00
2/12/2018	951			HOLIDAY SAND & GRAVEL CO	PI 9653	365549	020-5305-438.60-27	88.88
					PI 9654	365549	020-5400-434.60-27	83.63
2/12/2018	1249			MYERS TIRE SUPPLY INC	PI 9717	83001886	020-5120-437.60-23	386.80
2/12/2018	5371			PREMIER TRUCK GROUP	PI 9808	CM125222786	020-5125-436.60-20	133.00
2/12/2018	5885			VANCE BROTHERS INC	PI 9866	IP26008	020-5305-438.60-80	143.00
2/12/2018	5941			LOWES	PI 9684	02767	020-5305-438.60-23	138.28
					PI 9687	02806	020-5305-438.60-23	12.81
2/12/2018	8940			911 CUSTOM	PI 0130	30105	020-0000-141.00-00	115.16
					PI 0131	30178	020-0000-141.00-00	105.20
					PI 0163	30106	020-5120-437.60-20	157.80
2/12/2018	9892			GOODYEAR COMMERCIAL TIRE	PI 9629	2541010310	020-0000-141.00-00	2,825.71
					PI 9664	2541010310	020-5125-436.60-19	91.17
							2/12/2018 TOTAL -	5,978.53
							CUMULATIVE TOTAL -	231,556.39
2/13/2018	90			NAPA AUTO PARTS	PI 9741	2210892523	020-0000-141.00-00	129.42
					PI 9742	2210892523	020-0000-141.00-00	5.12

FUND	020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	I NVOI CE NO	ACCOUNT NO	AMOUNT
					PI 9743	2210892523	020-0000-141.00-00	227.97
					PI 9769	2210892477	020-5125-436.60-20	54.00-
					PI 9770	2210892508	020-5200-419.60-20	165.62
2/13/2018	92			WHITE STAR MACHINERY & SUPPLY	PI 9871	07176043	020-5305-438.60-20	58.12
2/13/2018	101			WELDON PARTS TULSA	PI 9846	203790800	020-0000-141.00-00	58.29
2/13/2018	206			FERGUSON PONTIAC GMC TRUCK	PI 9672	139665	020-5406-434.60-20	220.94
2/13/2018	244			GREEN ACRE SOD FARMS DBA	PI 0112	108702	020-5400-434.60-80	150.00
					PI 0113	108703	020-5400-434.60-80	225.00
2/13/2018	3104			MODERN BINDERY INC	PI 0124	S93647	020-5405-434.60-23	331.00
2/13/2018	5042			H G FLAKE SUPPLY CO	PI 9656	0353767	020-5405-434.60-23	239.68
					PI 9657	0353869	020-5405-434.60-23	582.10
					PI 9658	3534691	020-5405-434.60-23	21.62
2/13/2018	5936			CONTINENTAL BATTERY CO	PI 9595	17190213180915	020-0000-141.00-00	301.00
					PI 9598	17190213180916	020-0000-141.00-00	150.50
2/13/2018	5941			LOWES	PI 9688	01702	020-5415-435.60-23	64.56
					PI 9689	02033	020-5415-435.60-23	35.61
					PI 9690	13209	020-5305-438.60-20	26.53
					PI 9903	01633	020-5120-437.60-18	7.56
2/13/2018	6822			TULSA WINNELSON COMPANY	PI 0076	04267900	020-1700-419.60-23	218.29-
					PI 9993	04272200	020-1700-419.60-23	8.24
					PI 9995	100184	020-1700-419.60-23	218.29
2/13/2018	8846			DUNHAM S ASPHALT PLANT	PI 9646	248675	020-5305-438.60-80	152.35
2/13/2018	9569			TWIN CITIES READY MIX INC	PI 9852	159824	020-5305-438.60-27	202.50
2/13/2018	11119			PREMIER TRUCK GRP/ FREIGHTLINER	PI 0009	1259025	020-5305-438.70-02	60,841.00
							2/13/2018 TOTAL -	64,150.73
							CUMULATIVE TOTAL -	295,707.12
2/14/2018	90			NAPA AUTO PARTS	PI 9744	2210892604	020-0000-141.00-00	63.42
					PI 9745	2210892604	020-0000-141.00-00	155.21
					PI 9746	2210892604	020-0000-141.00-00	9.12
					PI 9747	2210892604	020-0000-141.00-00	108.20
					PI 9777	2210892561	020-5125-436.60-20	50.34
					PI 9778	2210892563	020-5305-438.60-20	9.87
					PI 9779	2210892566	020-5120-437.60-23	148.00
					PI 9781	2210892601	020-5125-436.60-20	15.18
					PI 9782	2210892618	020-5305-438.60-20	2.71
					PI 9783	2210892627	020-5120-437.60-23	60.76
2/14/2018	130			UNITED ENGINES INC	PI 9872	4085788	020-5400-434.40-20	1,767.67
2/14/2018	176			TIMMONS OIL COMPANY INC	PI 9845	W05791	020-0000-141.00-00	903.35
2/14/2018	225			SUMMIT TRUCK GROUP	PI 9818	411155143	020-0000-141.00-00	78.78
					PI 9836	411145047	020-5305-438.60-20	527.57
2/14/2018	370			AIRGAS USA LLC	PI 0028	9072797264	020-5130-437.60-23	51.90
2/14/2018	377			KIMS INTERNATIONAL	PI 9712	0103296	020-5125-436.60-20	190.56
2/14/2018	399			LOCKE SUPPLY COMPANY	PI 9706	3360688300	020-5400-434.60-38	14.83
					PI 9707	3360998300	020-5400-434.60-38	3.37
2/14/2018	786			CLIFFORD POWER SYSTEMS INC	PI 9623	RTN0009449	020-5415-435.60-20	174.19-
2/14/2018	1059			SOUTHERN TIRE MART	PI 9817	45378365	020-0000-141.00-00	90.01
2/14/2018	1409			SMITH FARM & GARDEN CO	PI 9830	794955	020-5305-438.60-20	6.99
					PI 9837	794945	020-5400-434.60-24	2,730.00
2/14/2018	5941			LOWES	PI 9691	02286	020-5305-438.60-23	50.92
					PI 9694	12652	020-5400-434.60-23	35.61

FUND	020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	I NVOI CE NO	ACCOUNT NO	AMOUNT
					PI 9695	13390	020-5305-438.60-10	19.32
					PI 9907	02222	020-1700-419.60-23	13.64
2/14/2018		8679		CORE & MAIN	PI 0012	1388458	020-0000-141.00-00	6,270.00
2/14/2018		8864		USA BLUEBOOK	PI 0084	492985	020-5410-435.60-34	414.00
2/14/2018		9569		TW N CITIES READY M X INC	PI 9855	159898	020-5305-438.60-27	281.30
2/14/2018		10233		PETROLEUM TRADERS CORP	PI 0132	1228777	020-0000-141.00-00	14,958.24
							2/14/2018 TOTAL -	28,856.68
							CUMULATIVE TOTAL -	324,563.80
2/15/2018		90		NAPA AUTO PARTS	PI 9748	2210892717	020-0000-141.00-00	171.22
					PI 9749	2210892717	020-0000-141.00-00	109.49
					PI 9786	2210892660	020-5400-434.60-20	2.86
					PI 9788	2210892681	020-5120-437.60-23	73.96
					PI 9789	2210892687	020-5400-434.60-20	35.99
					PI 9795	2210892767	020-5200-419.60-20	36.00
2/15/2018		120		CINTAS CORPORATI ON	PI 9603	5010054545	020-5405-434.60-23	49.93
2/15/2018		225		SUMMIT TRUCK GROUP	PI 9819	411155176	020-0000-141.00-00	59.20
2/15/2018		255		SAF T GLOVE INC	PI 9820	86469500	020-0000-141.00-00	112.57
2/15/2018		946		MACS HYDRAULIC JACK SERVICE	PI 9724	32944	020-5120-437.40-29	90.00
2/15/2018		2810		VINER ENTERPRISES DBA	PI 9874	152847	020-5120-437.40-29	60.00
2/15/2018		5936		CONTINENTAL BATTERY CO	PI 9599	10930215180946	020-0000-141.00-00	129.84
2/15/2018		5941		LOWES	PI 9699	02971	020-5405-434.60-23	141.50
2/15/2018		8679		CORE & MAIN	PI 0065	1375777	020-0000-141.00-00	17,805.00
2/15/2018		8736		BUDGET WASH INC	PI 9600	744953	020-0000-141.00-00	562.50
2/15/2018		9569		TW N CITIES READY M X INC	PI 0145	159994	020-5305-438.60-27	153.99
2/15/2018		9706		WATER TECH INC	PI 0159	63793	020-5410-435.60-34	4,674.50
2/15/2018		9892		GOODYEAR COMMERCIAL TIRE	PI 9633	2541010343	020-0000-141.00-00	1,573.00
					PI 9634	2541010342	020-0000-141.00-00	500.00
2/15/2018		10431		MOHAWK MATERIALS CO. INC.	PI 9677	427444	020-0000-141.00-00	211.50
2/15/2018		10554		JIM NORTON CHEVROLET	PI 9720	CTCS70972	020-5415-435.40-20	780.82
2/15/2018		11047		HARD HAT SAFETY & GLOVE LLC	PI 0100	26839	020-0000-141.00-00	72.00
							2/15/2018 TOTAL -	27,333.87
							CUMULATIVE TOTAL -	351,897.67
2/16/2018		37		ANCHOR STONE CO	PI 9610	180277409	020-5305-438.60-21	72.09
2/16/2018		90		NAPA AUTO PARTS	PI 9750	2210892832	020-0000-141.00-00	39.04
					PI 9751	2210892832	020-0000-141.00-00	89.64
					PI 9752	2210892832	020-0000-141.00-00	.78
					PI 9753	2210892832	020-0000-141.00-00	60.86
					PI 9796	2210892793	020-5120-437.60-23	73.96
2/16/2018		120		CINTAS CORPORATI ON	PI 9604	5010054554	020-5120-437.60-23	111.47
					PI 9605	5010054554	020-5130-437.60-23	72.83
					PI 9606	5010054555	020-5100-437.60-23	114.93
2/16/2018		225		SUMMIT TRUCK GROUP	PI 0143	226301	020-5305-438.70-02	65,737.00
					PI 9821	411155280	020-0000-141.00-00	201.30
2/16/2018		240		GRAINGER	PI 0125	9701877707	020-5405-434.60-23	41.00
2/16/2018		370		AIRGAS USA LLC	PI 0029	9072895745	020-5120-437.60-23	21.70
2/16/2018		1270		D P SUPPLY COMPANY	PI 9669	014610	020-5305-438.60-23	94.00
2/16/2018		4997		HARRIS CORPORATION PSPC	PI 9630	93282616	020-0000-141.00-00	177.60
					PI 9631	93282617	020-0000-141.00-00	647.50
					PI 9632	93282618	020-0000-141.00-00	181.30

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
	2/16/2018	5042	H G FLAKE SUPPLY CO	PI 9659	0354175	020-5405-434.60-23	70.20
				PI 9660	0354176	020-5405-434.60-23	16.47
	2/16/2018	5371	PREMIER TRUCK GROUP	PI 9814	125223397	020-5125-436.60-20	244.98
	2/16/2018	5941	LOWES	PI 9700	01026	020-5405-434.60-23	68.13
				PI 9911	01030	020-5305-438.60-23	7.59
	2/16/2018	8679	CORE & MAIN	PI 0014	1427879	020-0000-141.00-00	371.30
				PI 0032	1404943	020-5400-434.60-24	444.00
				PI 0034	1411750	020-5400-434.60-24	2,478.75
				PI 0058	1466382	020-5415-435.60-23	56.00
				PI 0068	1445328	020-0000-141.00-00	114.07
	2/16/2018	9892	GOODYEAR COMMERCIAL TIRE	PI 9635	2541010351	020-0000-141.00-00	1,199.80
	2/16/2018	10051	BROWNS MFG & SALES	PI 9626	499001	020-5305-438.70-03	274.00
						2/16/2018 TOTAL -	72,852.37
						CUMULATIVE TOTAL -	424,750.04
	2/18/2018	10889	BERTREM PRODUCTS INC	PI 0052	42405	020-5405-434.60-45	1,306.33
						2/18/2018 TOTAL -	1,306.33
						CUMULATIVE TOTAL -	426,056.37
	2/19/2018	8	BRENNTAG SOUTHWEST INC	PI 0030	BSW033886	020-5410-435.60-34	1,626.13
	2/19/2018	90	NAPA AUTO PARTS	PI 9754	2210893057	020-0000-141.00-00	80.54
				PI 9755	2210893057	020-0000-141.00-00	19.13
				PI 9799	2210893031	020-5305-438.60-20	14.53
				PI 9800	2210893061	020-5305-438.60-20	14.98
	2/19/2018	225	SUMMIT TRUCK GROUP	PI 9976	411155403	020-0000-141.00-00	47.94
	2/19/2018	240	GRAINGER	PI 0126	9704177774	020-5405-434.60-23	60.55
	2/19/2018	371	J & R EQUIPMENT LLC	PI 9891	2141958	020-5305-438.70-02	105,357.20
	2/19/2018	399	LOCKE SUPPLY COMPANY	PI 9709	33639467	020-5400-434.60-38	30.18
	2/19/2018	602	GADES SALES CO INC	PI 0099	00730841N	020-0000-141.00-00	5,390.00
	2/19/2018	2857	C K & W SUPPLY INC	PI 9601	120118	020-0000-141.00-00	231.00
	2/19/2018	5042	H G FLAKE SUPPLY CO	PI 9661	0354111	020-5405-434.60-23	826.11
	2/19/2018	5129	DCI COMMUNICATIONS	PI 0059	614024	020-5415-435.60-41	1,483.50
	2/19/2018	5371	PREMIER TRUCK GROUP	PI 9815	125223398	020-5125-436.60-20	305.32
	2/19/2018	8304	THERMO FISHER SCIENTIFIC	PI 0077	1165111	020-5405-434.60-34	407.38
	2/19/2018	8679	CORE & MAIN	PI 0079	1391168	020-5406-434.60-38	1,580.00
	2/19/2018	9700	ADVANCED INDUSTRIAL SOLUTIONS	PI 0015	234565	020-0000-141.00-00	462.70
				PI 0016	234566	020-0000-141.00-00	462.70
				PI 0017	234567	020-0000-141.00-00	358.80
	2/19/2018	10233	PETROLEUM TRADERS CORP	PI 0134	1230522	020-0000-141.00-00	14,913.02
						2/19/2018 TOTAL -	133,671.71
						CUMULATIVE TOTAL -	559,728.08
	2/20/2018	42	ARROW SAFE AND LOCK INC	PI 0024	71411	020-5400-434.60-23	20.75
				PI 0025	71414	020-5400-434.60-23	43.60
				PI 9898	71412	020-5305-438.60-23	15.75
	2/20/2018	90	NAPA AUTO PARTS	PI 9936	2210893161	020-5305-438.60-20	32.20
	2/20/2018	117	WAL MART STORE #0472	PI 9977	62862265	020-0000-141.00-00	8.80
	2/20/2018	240	GRAINGER	PI 0128	9705538115	020-5405-434.60-23	74.29
	2/20/2018	241	GRAND RIVER DAM AUTHORITY	006911	45866	020-5405-434.50-94	669.13
	2/20/2018	370	AIRGAS USA LLC	006874	991076158	020-5120-437.40-33	157.42
				006875	991076158	020-5115-437.40-33	35.92

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
				006876	991076158	020-5130-437.40-33	31.41
				006877	991076158	020-5305-438.40-33	35.92
				006878	991076158	020-5400-434.40-33	23.35
2/20/2018	1057	TULSA WORLD		006879	991076158	020-5410-435.40-33	31.41
				006927	439682-0103	020-5130-437.50-05	115.62
				006928	443088-0117	020-5130-437.50-05	26.88
2/20/2018	1756	CENTRAL PARK TAG AGENCY		006929	444807-0124	020-5130-437.50-05	110.70
2/20/2018	2673	ACCURATE ENVIRONMENTAL LLC		006968	L028367712	020-5100-437.40-55	10.00
2/20/2018	2698	PROS AND ASSOCIATES		006962	AB02006	020-5410-435.30-34	60.00
2/20/2018	3694	ARROW EXTERMINATORS INC		006985	30789	020-5130-437.50-86	150.00
				006884	567852	020-5305-438.40-07	32.50
				006886	566427	020-5100-437.40-07	105.00
				006887	567856	020-5100-437.40-07	65.00
2/20/2018	3911	YORK ELECTRONICS SYSTEMS INC		007003	65798	020-5410-435.40-07	333.00
2/20/2018	5282	THE MET		006990	2187	020-5125-436.50-10	9,558.29
2/20/2018	5290	HOLLOWAY, UPDIKE AND BELLEN INC		006912	19	020-5415-435.70-16	9,025.00
2/20/2018	5410	UNITED RENTALS, INC		006997	154079634002	020-5410-435.40-31	415.31
2/20/2018	5599	DEQ		007173	#18-225	020-5410-435.30-75	18,750.00
2/20/2018	5936	CONTINENTAL BATTERY CO		PI 9878	15320220180759	020-0000-141.00-00	454.44
2/20/2018	5941	LOWES		PI 9920	83775/83776	020-5405-434.60-23	135.39
2/20/2018	6454	WASTE MANAGEMENT QUARRY LANDFILL		006998	004945521856	020-5410-435.40-30	21,460.10
				006999	004938221852	020-5125-436.40-30	295.31
				007000	004946921857	020-5125-436.40-30	353.75
				007001	004946421858	020-5125-436.40-30	966.90
2/20/2018	6822	TULSA W W NELSON COMPANY		PI 9999	04387400	020-5410-435.60-18	154.54
2/20/2018	7367	BOKF N.A.		006967	600814222	020-0503-415.50-28	2,736.62
2/20/2018	7497	JPMORGAN CHASE BANK N.A.		006913	1100812	020-0503-415.50-28	1,396.35
2/20/2018	8523	STRATEGIC GOVERNMENT RESOURCES		006989	201800265	020-5305-438.30-87	1,788.53
2/20/2018	8679	CORE & MAIN		PI 0066	1485903	020-0000-141.00-00	28,080.00
2/20/2018	8997	AMERICAN MUNICIPAL SERVICES CO		006964	37092	020-0000-229.16-00	939.63
2/20/2018	9539	TULSA HEALTH DEPARTMENT		006993	32605	020-5410-435.30-34	3,453.00
				006994	32631	020-5410-435.30-34	130.00
2/20/2018	9892	GOODYEAR COMMERCIAL TIRE		PI 9879	2541010368	020-0000-141.00-00	266.18
2/20/2018	9916	WASTE ZERO INC		007002	30512	020-5125-436.60-25	34,368.88
2/20/2018	10039	COVANTA ENERGY LLC		006969	154613CVTUL	020-5125-436.40-30	35,382.48
2/20/2018	10214	TULSA'S GREEN COUNTRY STAFFING		006996	60151	020-5125-436.50-37	6,138.60
2/20/2018	10360	JAVA DAVES EXECUTIVE COFFEE SE		006978	134433	020-5305-438.60-23	36.74
2/20/2018	10554	JIM NORTON CHEVROLET		PI 0127	CTCS71531	020-5400-434.40-20	780.82
2/20/2018	10703	ACDC INDUSTRIAL AUTOMATION		006963	180029	020-5410-435.40-50	375.00
2/20/2018	10949	ROUTEWARE INC.		006923	99061	020-5125-436.40-55	8,306.91
				006924	98945	020-5125-436.40-55	6,250.00
2/20/2018	11047	HARD HAT SAFETY & GLOVE LLC		PI 0101	26894	020-0000-141.00-00	554.40
				PI 0102	26895	020-0000-141.00-00	141.45
						2/20/2018 TOTAL -	194,883.27
						CUMULATIVE TOTAL -	754,611.35
2/21/2018	90	NAPA AUTO PARTS		PI 9938	2210893194	020-5305-438.60-20	30.60
				PI 9940	2210893208	020-5120-437.60-20	22.49
				PI 9941	2210893226	020-5305-438.60-20	14.98
2/21/2018	120	CINTAS CORPORATION		PI 0020	5010089342	020-5410-435.40-07	166.87
2/21/2018	179	TRANS CONTINENTAL SUPPLY INC		PI 0069	1029774	020-0000-141.00-00	623.72

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
	2/21/2018	225	SUMMIT TRUCK GROUP	PI 0070	1029774	020-0000-141.00-00	157.68
				PI 0133	411155568	020-0000-141.00-00	78.78
				PI 9978	411155553	020-0000-141.00-00	185.84
	2/21/2018	1589	SEWER EQUIPMENT OF AMERICA	PI 0006	CM0069358	020-5415-435.60-20	184.68
	2/21/2018	5042	H G FLAKE SUPPLY CO	PI 9900	0354258	020-5405-434.60-23	16.22
				PI 9901	0354284	020-5405-434.60-23	12.50
				PI 9902	3541111	020-5405-434.60-23	443.00
	2/21/2018	5941	LOWES	PI 9923	02811	020-5305-438.60-23	23.75
						2/21/2018 TOTAL -	1,591.75
						CUMULATIVE TOTAL -	756,203.10
	2/22/2018	90	NAPA AUTO PARTS	PI 9946	2210893303	020-5305-438.60-20	24.50
				PI 9947	2210893305	020-5305-438.60-20	12.99
				PI 9950	2210893366	020-5305-438.60-20	2.50
	2/22/2018	92	WHITE STAR MACHINERY & SUPPLY	PI 0090	07176475	020-5400-434.60-20	57.10
	2/22/2018	173	TULSA AUTO SPRING	PI 0003	00348748	020-5125-436.60-20	1,294.59
	2/22/2018	225	SUMMIT TRUCK GROUP	PI 0092	411155679	020-5400-434.60-20	330.73
	2/22/2018	437	OCT EQUIPMENT INC	PI 0075	U02987	020-5400-434.70-03	85,719.20
	2/22/2018	5371	PREMIER TRUCK GROUP	PI 0096	RO12534482	020-5125-436.60-20	110.15
	2/22/2018	5941	LOWES	PI 9926	02006	020-5410-435.60-23	63.73
						2/22/2018 TOTAL -	87,615.49
						CUMULATIVE TOTAL -	843,818.59
	2/23/2018	42	ARROW SAFE AND LOCK INC	PI 0026	71421	020-5305-438.70-02	55.35
	2/23/2018	101	WELDON PARTS TULSA	PI 0149	204317500	020-5125-436.60-20	167.05
	2/23/2018	238	GOODYEAR AUTO SERVICE CENTER	PI 0117	147211	020-5405-434.60-20	50.00
	2/23/2018	5042	H G FLAKE SUPPLY CO	PI 0114	0354279	020-5405-434.60-45	75.42
				PI 0115	0354327	020-5405-434.60-45	267.07
				PI 0116	3541761	020-5405-434.60-45	26.20
	2/23/2018	5941	LOWES	PI 0156	01916	020-5305-438.60-27	52.05
				PI 0157	02231	020-5305-438.60-23	83.56
				PI 0158	12404	020-5305-438.60-20	10.72
	2/23/2018	7296	CHRISTIAN NIKEL CHRYSLER JEEP DODGE	PI 0089	686238	020-5405-434.60-20	46.65
	2/23/2018	9892	GOODYEAR COMMERCIAL TIRE	PI 0103	2541010388	020-0000-141.00-00	2,866.58
	2/23/2018	11059	YELLOWHOUSE EXCHANGE	PI 0087	312017	020-5400-434.60-20	385.10
						2/23/2018 TOTAL -	4,085.75
						CUMULATIVE TOTAL -	847,904.34
	2/24/2018	225	SUMMIT TRUCK GROUP	PI 0161	CM411153680	020-5400-434.60-20	17.83
	2/24/2018	399	LOCKE SUPPLY COMPANY	PI 0121	3367716400	020-5115-437.60-24	8.94
						2/24/2018 TOTAL -	26.77
						CUMULATIVE TOTAL -	847,931.11
	2/26/2018	101	WELDON PARTS TULSA	PI 0150	204492200	020-5410-435.60-20	46.61
	2/26/2018	2538	ENVIRONMENTAL IMPROVEMENTS INC	PI 0078	0038601	020-5405-434.60-24	1,770.00
				PI 0080	0038603	020-5405-434.60-45	484.00
	2/26/2018	4997	HARRIS CORPORATION PSPC	PI 0135	93283344	020-0000-141.00-00	304.50
	2/26/2018	10362	BRUCKNER TRUCK SALES-TULSA WEST	PI 0083	44959U	020-5305-438.60-20	248.15
						2/26/2018 TOTAL -	2,853.26
						CUMULATIVE TOTAL -	850,784.37

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
	2/27/2018	101	WELDON PARTS TULSA	PI 0138	204573700	020-0000-141.00-00	168.30
	2/27/2018	159	DK MACHINE INC	007046	10703	020-5406-434.40-55	8.00
				007047	10704	020-5406-434.40-55	300.00
	2/27/2018	225	SUMMIT TRUCK GROUP	PI 0136	411155873	020-0000-141.00-00	71.91
				PI 0137	411155873	020-0000-141.00-00	185.84
	2/27/2018	257	SAFETY KLEEN CORP	007086	75986423	020-5120-437.40-33	100.00
	2/27/2018	377	KIMS INTERNATIONAL	PI 0123	0103541	020-5410-435.60-45	13.40
	2/27/2018	3664	OKLAHOMA NATURAL GAS COMPANY	007075	021-19574	020-5305-438.40-28	1,557.82
	2/27/2018	3911	YORK ELECTRONICS SYSTEMS INC	007121	65835	020-1700-419.40-07	300.00
	2/27/2018	8919	BRI NK' S INCORPORATED	007041	2134746	020-0503-415.50-28	539.62
	2/27/2018	9916	WASTE ZERO INC	007119	30585	020-5125-436.60-25	5,995.67
	2/27/2018	10214	TULSA' S GREEN COUNTRY STAFFING	007117	60298	020-5125-436.50-37	6,224.40
						2/27/2018 TOTAL -	15,464.96
						CUMULATI VE TOTAL -	866,249.33
	2/28/2018	160	DOERNER SAUNDERS DANIEL & ANDE	007155	204341	020-1700-419.30-08	10,000.00
				007156	204341	020-1700-419.30-09	4,970.00
	2/28/2018	574	SUPERI ON, LLC	007168	203772	020-0503-415.50-28	718.80
	2/28/2018	575	CRAWFORD & ASSOCI ATES, P. C.	007149	11252	020-1700-419.30-87	7,640.00
				007151	11251	020-1700-419.30-87	11,977.60
	2/28/2018	6454	WASTE MANAGEMENT QUARRY LANDFI	007170	219398810065	020-5125-436.40-30	379.48
	2/28/2018	8523	STRATEGI C GOVERNMENT RESOURCES	007167	201800274	020-5305-438.30-87	1,809.02
	2/28/2018	9151	CLEAN THE UNI FORM CO OKLAHOMA	007183	50865855	020-5410-435.40-31	14.20
				007184	50866979	020-5410-435.40-31	14.20
				007185	50866980	020-5410-435.40-28	4.00
				007186	50867609	020-5200-419.40-31	13.04
				007189	50868066	020-5305-438.40-31	148.43
				007191	50868067	020-5305-438.40-33	2.60
				007197	50868736	020-5200-419.40-31	13.04
				007198	50868737	020-5400-434.40-31	142.97
				007199	50868737	020-5406-434.40-31	48.53
				007200	50868738	020-5415-435.40-31	46.71
				007201	50868739	020-5115-437.40-31	45.76
				007204	50868741	020-5130-437.40-31	8.62
				007205	50868742	020-5120-437.40-31	105.02
				007206	50868743	020-5125-436.40-31	157.53
				007207	50868744	020-5100-437.40-33	19.00
				007208	50868744	020-5120-437.40-33	25.00
				007210	50869194	020-5305-438.40-31	148.43
				007212	50869195	020-5305-438.40-33	2.60
				007214	50868075	020-5405-434.40-28	8.10
				007215	50868073	020-5405-434.40-31	76.84
				007216	50869201	020-5405-434.40-31	76.84
				007217	50869202	020-5410-435.40-31	14.20
				007218	50869203	020-5410-435.40-28	4.00
				007225	50868076	020-5410-435.40-31	14.20
				007227	50869840	020-5200-419.40-31	13.04
				007228	50869841	020-5100-437.40-33	4.00
				007229	50869842	020-5400-434.40-31	148.86
				007230	50869842	020-5406-434.40-31	48.53
				007231	50869843	020-5415-435.40-31	46.71

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	I NVOI CE NO	ACCOUNT NO	AMOUNT
				007232	50869844	020-5115-437.40-31	45.76
				007234	50869846	020-5130-437.40-31	8.62
				007235	50869847	020-5120-437.40-31	105.02
				007236	50869848	020-5125-436.40-31	152.79
				007237	50869849	020-5120-437.40-33	29.00
				007240	50870301	020-5305-438.40-31	143.42
				007242	50870302	020-5305-438.40-33	2.60
				007244	50870310	020-5405-434.40-28	8.10
				007245	50870308	020-5405-434.40-31	76.84
				007246	50870311	020-5410-435.40-31	14.20
2/28/2018	10137		WAGONER CO RRWD DI STRI CT #4	007169	032	020-0503-415.50-28	150.00
						2/28/2018 TOTAL -	39,646.25
						CUMULATI VE TOTAL -	905,895.58
3/01/2018	193		ELLI OTT ELECTRI C SUPPLY	007269	1348167302	020-5410-435.70-15	4,793.35
				007270	1348167303	020-5410-435.70-15	4,793.33
				007271	1348167301	020-5410-435.70-15	691.32
3/01/2018	205		FERGUSON WATERWORKS #1895	007272	0563558	020-5410-435.70-15	42.00
				007273	0565285	020-5410-435.70-15	36.65
3/01/2018	403		MAXWELL SUPPLY OF TULSA INC	007274	451249	020-5410-435.70-15	161.52
3/01/2018	6626		REXEL USA INC	007275	S118542677	020-5410-435.70-15	523.70
3/01/2018	10671		SUNBELT RENTALS	007276	751094560001	020-5410-435.70-15	831.48
				007277	751821280002	020-5410-435.70-15	324.90
				007278	751094560002CM	020-5410-435.70-15	91.26-
3/01/2018	11171		AUTOMATI C ENGI NEERI NG	007267	5410986	020-5410-435.70-15	15,000.00
				007268	5411564	020-5410-435.70-15	496.00
						3/01/2018 TOTAL -	27,602.99
						CUMULATI VE TOTAL -	933,498.57
3/06/2018	113		WAGONER COUNTY RURAL WATER #4	007023	68500	020-5415-435.50-23	13.43
				007024	68500	020-5415-435.50-23	13.43
3/06/2018	309		OKLAHOMA NATURAL GAS CO	000025	220544536	020-5415-435.50-24	26.57
				000026	253747127	020-5415-435.50-24	41.67
				000027	254035382	020-5415-435.50-24	29.62
				000111	253867927	020-5415-435.50-24	25.57
				000572	257659209	020-5415-435.50-24	42.31
				004047	110016445	020-5120-437.50-24	434.18
				004446	257977409	020-5415-435.50-24	26.92
				006136	179009782	020-5100-437.50-24	266.48
				006294	111356527	020-5305-438.50-24	253.46
				007135	220544536	020-5415-435.50-24	.40
				007136	253747127	020-5415-435.50-24	.62
				007137	254035382	020-5415-435.50-24	.44
				007138	257659209	020-5415-435.50-24	.64
				007139	257977409	020-5415-435.50-24	.42
3/06/2018	442		AMERI CAN ELECTRI C POWER	000683	9588213380	020-5405-434.50-25	44,934.24
				005109	9553052871	020-5405-434.50-25	6,449.84
				007124	9509512540	020-5400-434.50-25	52.12
				007125	9520400250	020-5400-434.50-25	51.95
				007126	9529037750	020-5400-434.50-25	246.83
				007127	9535827230	020-5400-434.50-25	693.58

FUND 020 BAMA	DATE DUE	VENDOR NO	VENDOR NAME	VOUCHER NO	INVOICE NO	ACCOUNT NO	AMOUNT
				007128	9525157130	020-5400-434.50-25	86.72
				007129	9572008130	020-5400-434.50-25	285.74
				007130	9579897130	020-5400-434.50-25	54.53
				007131	9579957130	020-5400-434.50-25	65.46
3/06/2018	888	PREFERRED BUSINESS SYSTEMS		009439	9525931030	020-1700-419.50-25	826.58
				000661	078897	020-5406-434.40-33	134.00
				000663	078827	020-5405-434.40-33	191.85
				001523	078924	020-5205-419.40-33	205.00
				001788	078947	020-5130-437.40-33	90.42
				001789	078947	020-5100-437.40-33	90.42
				001790	078947	020-5120-437.40-33	35.75
				001796	078947	020-0503-415.40-33	90.42
				006013	IN V13816	020-5410-435.40-55	12.54
				006014	IN V13816	020-5130-437.40-55	18.64
				006015	IN V13816	020-5100-437.40-55	9.83
				006016	IN V13816	020-5120-437.40-55	9.58
				006017	IN V13816	020-5205-419.40-55	706.27
				006020	IN V13816	020-0503-415.40-55	70.10
				006021	IN V13816	020-5400-434.40-55	36.07
				006026	IN V13816	020-5405-434.40-55	14.04
3/06/2018	7724	WINDSTREAM		006027	IN V13816	020-5406-434.40-55	11.33
				006940	2598040	020-5100-437.50-22	184.76
				007568	4513524	020-5415-435.50-22	80.20
3/06/2018	7782	TIGER, INC.		007570	3572491	020-5415-435.50-22	82.54
				005087	1790097	020-5100-437.50-24	668.36
3/06/2018	8512	AT&T MOBILITY		005092	1100164	020-5120-437.50-24	1,411.24
				000654	6446493	020-5200-419.50-22	60.50
				000655	6446494	020-5200-419.50-22	60.50
				000656	6930623	020-5200-419.50-22	65.35
				000657	6989325	020-5200-419.50-22	60.50
				000658	6989326	020-5200-419.50-22	60.50
				000659	8570323	020-5200-419.50-22	60.50
				000660	8920616	020-5200-419.50-22	60.50
				000661	8092689	020-5205-419.50-22	65.35
				000665	6931161	020-5120-437.50-22	32.35
				000666	7981029	020-5405-434.50-22	32.35
				000667	9369042	020-5410-435.50-22	32.35
				000687	6932991	020-5400-434.50-22	32.35
				000688	6933102	020-5400-434.50-22	32.35
				000689	5653832	020-5415-435.50-22	32.35
				000690	8923683	020-5415-435.50-22	32.35
				002439	7201588	020-5205-419.50-22	54.20
				003456	4026912	020-5400-434.50-54	40.40
				003457	4039359	020-5400-434.50-54	40.00
				003459	6303341	020-5200-419.50-54	40.00
				005082	8993249	020-5400-434.50-54	40.00
				006031	2373170	020-5400-434.50-54	40.00
				006032	2829013	020-5400-434.50-54	40.00
				007031	3468936	020-5415-435.50-22	33.77
				007032	5764506	020-5215-419.50-54	83.31
				007034	1 EQUIP	020-5415-435.60-24	18.90

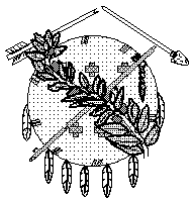
PREPARED 3/02/18, 7:22:46
PROGRAM GM314L
CITY OF BROKEN ARROW

ACCOUNTS PAYABLE BY FUND/ DUE DATE

PAGE 23

FUND	020 BAMA						
DATE		VENDOR	VENDOR	VOUCHER	I NVOI CE	ACCOUNT	
DUE		NO	NAME	NO	NO	NO	AMOUNT
				007035	7 EQUI P	020-5215-419.60-24	625.30
				007036	UT I L I T Y EQUI P	020-5400-434.60-24	937.82
				008701	8570944	020-5115-437.50-22	32.35
				008977	2825651	020-5200-419.50-54	43.00
				008978	2825682	020-5200-419.50-54	43.00
				008979	2825684	020-5200-419.50-54	39.89
				008980	2825686	020-5200-419.50-54	43.00
				008981	2825697	020-5200-419.50-54	43.00
				009376	5100835	020-5406-434.50-54	40.00
				009377	5109132	020-5406-434.50-54	40.00
				009378	7285048	020-5400-434.50-54	41.00
				009379	7285116	020-5400-434.50-54	40.00
						3/06/2018 TOTAL -	62,196.20
						FUND 020 TOTAL -	995,694.77

FUND	021	BAMA	SALES TAX					
DATE		VENDOR		VOUCHER	I NVOI CE	ACCOUNT		AMOUNT
DUE		NO	VENDOR	NO	NO	NO		
			NAME					
3/06/2018	596		OKLAHOMA WATER RESOURCES BOARD	007141	ORF-18-0018-CW	021-5410-473.83-02		108.90
				007142	ORF-18-0018-CW	021-5410-473.83-01		42.35
3/06/2018	1211		BANK OF OKLAHOMA N A	000651	FAP-16-0001-L	021-5410-473.80-01		70,764.21
				000652	FAP-11-0002-L	021-5400-471.80-01		123,969.42
				000653	FAP-17-0004-L	021-5410-473.80-01		72,407.71
				000654	FAP-17-0003-L	021-5410-473.80-01		29,244.58
				007004	ORF-16-0006-CW	021-5410-473.80-01		35,286.92
3/06/2018	8422		BANCFIRST	007005	ORF-03-0006-DW	021-5405-473.80-01		343,067.03
				007006	ORF-03-0006-DW	021-5405-473.83-02		2,673.87
				007007	ORF-03-0006-DW	021-5405-475.83-01		11,566.59
				007008	ORF-05-0006-DW	021-5410-473.80-01		548,579.11
				007009	ORF-05-0006-DW	021-5410-473.83-02		77,209.00
				007010	ORF-05-0006-DW	021-5410-473.83-01		19,363.69
				007011	ORF-09-0044-DW	021-5405-473.80-01		100,000.00
				007012	ORF-09-0044-DW	021-5405-473.83-02		44,150.84
				007013	ORF-09-0044-DW	021-5405-475.83-01		8,453.97
				007014	ORF-09-0033-CW	021-5410-473.80-01		117,000.00
				007015	ORF-09-0033-CW	021-5410-473.83-02		40,328.19
				007016	ORF-09-0033-CW	021-5410-473.83-01		8,591.24
				007017	ORF-11-0006-DW	021-5405-473.80-01		875,000.00
				007018	ORF-11-0006-DW	021-5405-473.83-02		420,913.25
				007019	ORF-11-0006-DW	021-5405-475.83-01		86,257.26
				007020	ORF-16-0006-CW	021-5405-473.80-01		200,386.32
				007021	ORF-16-0006-CW	021-5405-473.83-02		9,552.66
				007022	ORF-16-0006-CW	021-5405-475.83-01		4,464.43
						3/06/2018 TOTAL -		3,249,381.54
						FUND 021 TOTAL -		3,249,381.54



City of Broken Arrow

Fact Sheet

File #: 18-331, Version: 1

**Broken Arrow Municipal Authority
Meeting of: 3-6-2018**

**To: Chairman and Authority Members
From: Utilities Department
Title:**

Approval of and authorization to accept the proposal from Pencco, Inc., to extend the 45 day chemical feed pilot program for odor control and the monitoring service along the County Line sewer trunk line

Background:

At the December 5, 2017 meeting, BAMA approved a proposal from Pencco, Inc. to conduct a 45 day chemical addition pilot program for odor control along County Line Road sewer trunk line. This program was initiated as a proactive response to the sewer odor complaints from residents living along County Line Road.

On January 6, 2018, Pencco subsequently mobilized and installed the bulk chemical storage tank and chemical feed pumps at the 209th lift station located along 71st St. E. Two odor loggers were also installed in the manholes along the trunk line; one at New Orleans St & 193rd Ave., the second unit at 8511 S. 9th St. As part of their scope of work, Pencco staff closely monitored and adjusted the chemical feed rate to optimize the chemical dosage according to the Hydrogen Sulfide levels recorded in vapor form and H₂S reduction at the two manhole structures. All data recorded is transmitted and monitored using cloud storage. Staff has been granted access to log on and observe in real time the H₂S levels at the two locations and the chemical feed rate. A third odor logger was installed at staff's request at Washington St. & 193rd Ave. and currently does not have the remote data transmitting capability. The correct type of odor logger is on order and Pencco shall install it as it becomes available.

In reviewing the data collected from the odor loggers, the chemical addition program has proven to be successful. The specially formulated chemical has reduced the vapor level of sulfide recorded from as high as 62 parts per million (ppm) to an average 3 ppm. This was made possible after starting with a high chemical feed rate of about 400 gallons per day (gpd) and gradually lowering the feed rate to about 225 gpd. The initial high dosage was needed to coat the slimy sulfide releasing bacteria layer in the pipe. The established target feed rate is between 180-210 gpd and this will correlate directly to ambient temperature. Higher temperatures increases the release of sewer gases.

Staff is recommending to continue with the chemical addition for the odor control program till the beginning of the new fiscal year. In the meantime Utilities staff will work closely with Engineering and Construction staff to re-evaluate the chemical addition program and explore other cost effective methods to control the release of sewer gases till the trunk line gets replaced.

Staff has reached out to Pencco and negotiated a slightly reduced price of \$2.38 per gallon of chemical compared to \$2.48 charged for the 45 day pilot program. It is estimated that each tanker load of chemical is about 4,200 gallons and is expected to last about 20 days. The cost per load is about \$9,996.00. The last load of chemical delivered per the 45 day pilot program contract will last until approximately March 7, 2018. A new load shall be ordered on or around March 1st to replenish the chemical inventory. Seven more loads will be needed to extend the program until July 2018 at \$9,996.00 per load. Including the monthly cost of equipment rental, the total estimated cost to continue with the chemical addition program is \$69,972.00.

Pencco has agreed to continue with the current services provided as outlined in the November 21, 2017 proposal. Representatives of Pencco will meet with city staff sometime in March to discuss the results of the 45 day pilot program. Staff has identified funds in the Sewer Repair and Construction Division (020-5415-435-4028).

Cost: \$ 69,972.00

Prepared By: Anthony C. Daniel, Utilities Director

Reviewed By: Finance Department
Legal Department
Assistant City Manager-Operations

Approved By: Michael L. Spurgeon, City Manager

Attachments: Proposal from Pencco to continue the chemical addition pilot program for sewer odor along County Line Road sewer trunk line

Recommendation:

Approve and accept the proposal from Pencco Inc. to continue with the chemical feed pilot program for odor control along the County Line sewer trunk line



PO Box 600 San Felipe, Texas 77473
(979) 885-0005 Fax: (979) 885-3208

February 22, 2018

Anthony Daniel
City of Broken Arrow
Director of Utilities
Email: adaniel@brokenarrowok.gov

Subject: Proposal - SULFeND® Full Service Treatment for Sulfide Control on the County Line Road Interceptor – Extended Pilot.

Dear Anthony,

Thank you for inviting Pencco Inc. to evaluate the critical hydrogen sulfide odor concern emanating from the County Line wastewater line. Pencco Inc. recognizes this odor concern is a high priority for the Broken Arrow as the County Line Road line segment produces high sulfide loadings and odor complaints to the area of the city near 101st and County Line.

Pencco Inc. is pleased to provide Broken Arrow with the following proposal for a full-service SULFeND® program to control odors along the County Line Road line.

Prior to this proposal, Pencco Inc. conducted an extensive sulfide survey on the County Line Road line to fully understand the sulfide loadings. Based on our findings, vapor levels along the County Line Road segment exceed over 180 ppm vapor H₂S and liquid sulfide loadings over 138 lbs./day. Based on the sulfide levels measured, we estimate a target feed of 180-210 gallons per day of SULFeND® for complete control during the summer and winter seasons to achieve 25 ppm on daily average for vapor H₂S and < 0.5 mg/L for dissolved sulfide. The target usage was derived from our sampling data and extrapolated for the year based on normal conditions. In similar applications, we have observed seasonal fluctuations which can be utilized for optimization of chemical usage, with winter and spring generally requiring less treatment. The proposal is comprehensive in nature and include full-service delivery of the chemicals, equipment, labor and services required to reliably and safely apply the technology or the duration of the project, excluding any required dose site civil work or improvements.

The attached diagram shows dosing and monitoring points on the County Line Road line.

Program Cost – Extended Pilot

The price per gallon is good through January 1st, 2019.

Cost for extending the SULFeND® program at the city of Broken Arrow for 4 months is:

- SULFeND Price per gallon: \$2.38
 - Pencco estimates an average usage to require a load per each 20 days
 - In addition, as the weather warms up and increases the bacterial respiration rate, the quantity to meet the goals of the program may increase above the estimated 210 gpd average.
-

- Pencco estimates the usage to be 6 to 7 loads of 4200 gallons of chemical for the 4 months – the City will only pay for the delivered quantity
- Total estimated 7 load cost is \$69,972.00

Equipment Provided

- (1) 6000 gallon high density polyethylene tank (see attached drawing)
- Ultrasonic level transmitter and high fill switch
- (1) 16.5' by 16.5' Poly lined Steel Containment with steps for ingress and egress
- Leak Detection System for Containment
- (1) NEMA 4 Fiberglass Enclosure including:
 - 500 ml Calibration System
 - Pump Mounting Shelf
 - Dual Fan Cooling System
 - Double Pole Power Switch Box
 - Power Outlet for Pumps
 - Leak Detection System
 - Drain to Containment
 - Chemical Inlet and Outlet
 - Field Connection Enclosure
 - Control Panel Mount
 - Stainless Steel Frame mount for Panel and Piping
 - Alarm Light on Panel
- (1) NEMA 4 Polycarbonate Control Panel including:
 - Touchscreen Monitor and Controls
 - Independent Cooling System
 - Sierra Wireless LS300 Programmable Modem for Web monitoring and control
- PLC Control System with
 - 48 point Curve Fit
 - 48 point modified flow pace capability with customer flow signal
 - Spare discrete and analog inputs and outputs for custom communication to customer system
- (2) Blue White A2V Variable Speed Peristaltic Pumps (up to 14.7 gph)
- Portable Eye Wash and Shower System
- (3) RTX OdaLogs for testing and optimization
 - 91st St.
 - 101 St and 193rd Rd
 - 8511 S 9th St.
- Delivery to Site
- Complete assembly and installation on prepared site
- Start-up, Calibration, and testing

The scope includes the following service:

Continued Services Provided by Pencco

1. Maintenance of storage and feed system, Start-up, and Optimization
2. SULFEND[®] Solution
3. Sampling and data collection/Reporting. Once every other week at 3 sites.
4. Program management
5. Emergency Service

Program Goals at Final Control Point:

- <25 ppm average H₂S in vapor
- <0.5 mg/L Dissolved Sulfide in liquid

SULFeND® Program

Upon successful completion, the City of Broken Arrow can elect to continue the program. The standard SULFeND program includes:

- The SULFeND System deployed for the test
- Monthly Service
 - Mechanical System check and wear part replacement
 - An RTX OdaLog placed at the terminal control point
 - Liquid Sampling Check
- Program Engineer Overview
 - Routine reviewing of data
 - Maintaining the Website
 - Inventory Management
- Web Cellular service
 - Complete access by Customer – monitoring and control
 - Future web upgrades
- Emergency Service
- Priority Access to our survey team for future odor and corrosion control situations

Cost for Permanent Program

1. SULFeND Price per gallon: \$2.38 (locked until January 1, 2019)
2. Program Fees: \$1,450.00 per month

Notes:

1. Pricing does not include applicable tax
2. Proposal is valid for 90 days
3. Terms are Net 30
4. SULFeND pricing is locked until January 1, 2019, price adjustments are based on our documented cost changes for raw materials and manufacturing costs
5. In the event that the program is successful and the City does not elect to go forward, there is a \$4,000 demobilization fee.

We appreciate the opportunity and look forward to serving you and the City.

If approved, please sign below and return.

Sincerely,

Vincent Marano

Vincent Marano
Pencco, Inc.

City Manager

Date

Approved as to form: *Leshi Myers*
Asst. City Attorney

County Line Road Line Diagram

