CITY OF BROKEN ARROW
Where opportunity lives

MONTHLY OPERATIONAL REPORT

City of Broken Arrow Lynn Lane Water Reclamation Facility

July-24

		WEATHER			INFLUENT								EAST OXIDATION DITCH					WEST OXIDATION DITCH					SLUDGE WASTING					DIGESTER		
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. Settl.	SVI (ml/gm)	MLSS (mg/L)	Sl. Age (Days)	D.O. (mg/L)	30 Min. Settl.	SVI (ml/gm)	MLSS (mg/L)	Sl. Age (Days)	WAS (MGD)	WAS MLSS (mg/L)	CAKE (%)	LANDFILL (Tons)	LANDFILL (D.M. Tons)	THK EFFL MLVSS (mg/L)	BP FEED MLVSS (mg/L)	VECTOR ATT RED. (%)
1	Mon	95	0.00	Clear	5.198	4.477	24	7.4	290	20	246	234	1.3	280	106	2,650	17	0.9	290	107	2,700	17	0.160	4,420	15			8,075	8,175	
2	Tue	97	0.00	Clear	5.251	4.395	23	7.4	257	28	348	287	1.8	290	118	2,450	11	1.8	300	115	2,600	11	0.160	3,960	15	14.42	1.96			
3	Wed	97	0.00	Clear	5.174	4.320	23	7.4	250	18	222	262	1.4	300	122	2,450	17	1.6	310	122	2,550	18	0.160	3,930	14	28.15	3.58	10,450	7,475	28
4	Thu	101	0.21	Clear	4.703	4.460	23	7.5	267	18	166	195	1.7	290	121	2,390	24	1.3	290	116	2,490	26	0.160	3,950	14	19.93	2.53			
5	Fri	85	0.42	Clear	5.342	4.329	23	7.3	202	17	244	219	1.5	300	126	2,390	15	1.4	320	142	2,260	14	0.160	4,740	13	34.34	4.05	9,950	2,100	79
6	Sat	91	0.00	Clear	5.577	3.413	22	7.4	268	14			2.1	310				1.9	310				0.160							
7	Sun	84	0.80	Cloudy	4.955	4.067	23	7.4	266	16			2.2	340				2.0	340				0.160							
8	Mon	84	0.25	Cloudy	5.660	4.195	24	7.5	276	16	226	194	1.4	390	153	2,550	16	1.2	370	136	2,720	17	0.160	5,020	13	28.71	3.39	10,550	8,425	20
9	Tue	87	0.01	Cloudy	5.771	3.774	23	7.4	272	14	222	197	0.9	310	122	2,550	16	1.1	310	127	2,440	15	0.160	5,180	13	32.26	3.80			
10	Wed	93	0.00	Cloudy	5.412	3.783	23	7.5	277	15	216	225	1.8	340	140	2,430	17	2.2	370	134	2,760	19	0.160	4,560	14	15.38	1.95	12,250	7,525	39
11	Thu	94	0.00	P Cloudy	5.299	3.915	24	7.5	285	13	242	239	1.1	420	172	2,445	15	2.1	410	172	2,385	15	0.160	5,390	14	11.01	1.40			
12	Fri	94	0.00	Clear	5.723	3.797	24	7.5	281	14	210	221	2.0	450	174	2,590	17	2.5	450	164	2,740	18	0.160	4,410				11,525		
13	Sat	94	0.00	Clear	5.506	3.736	23	7.4	279	35			3.2	450				2.1	500				0.160							
14	Sun	97	0.00	Clear	5.026	3.756	23	7.3	279	19			2.3	500				2.9	410				0.160							
15	Mon	98	0.00	Clear	5.107	3.708	23	7.4	264	18	262	238	1.1	430	91	4,740	28	1.9	420	150	2,800	17	0.160	4,800				10,700		100
16	Tue	96	0.00	Cloudy	5.154	3.816	23	7.5	284	16	300	304	1.2	430	154	2,790	14	2.0	420	140	3,000	16	0.160	4,340	14				7,375	
17	Wed	86	0.10	Cloudy	5.112	3.866	23	7.4	258	19	209	222	1.3	480	157	3,050	23	2.0	400	138	2,900	22	0.160	3,570	16	30.85	4.48	10,025	7,500	25
18	Thu	87	0.00	Clear	5.138	3.856	24	7.5	303	19	290	209	1.3	380	131	2,910	16	2.1	380	122	3,110	17	0.160	3,856	16	18.36	2.66			
19	Fri	89	0.00	Clear	4.991	3.840	23	7.5	272	27	266	253	1.6	400	129	3,090	19	2.6	340	110	3,090	19	0.160	4,780	15	18.59	2.53	10,625	8,650	19
20	Sat	88	0.00	Clear	4.866	3.807	22	7.5	276	20			2.2	300				3.2	350				0.160							
21	Sun	82	0.86	Cloudy	4.884	3.781	22	7.4	269	18			1.7	350				2.5	350				0.160							
22	Mon	85	0.00	P Cloudy	5.477	3.675	23	7.5	290	15	262	238	0.9	340	114	2,970	17	1.7	330	111	2,980	17	0.160	5,630	16	30.49	4.43	12,700	8,500	33
23	Tue	90	0.00	Clear	5.260	3.589	23	7.4	269	17	216	208	1.4	340	114	2,990	21	2.6	320	112	2,850	20	0.160	4,790	16	14.30	2.08			
24	Wed	92	0.00	Clear	5.009	3.720	24	7.5	284	18	216	204	1.2	320	107	3,000	22	2.5	300	104	2,890	21	0.160	4,810	16	30.11	4.37	11,725	8,250	30
25	Thu	93	0.00	Clear	5.138	3.711	24	7.5	291	15	244	222	1.5	280	102	2,740	17	2.1	270	94	2,860	18	0.160	4,740	15	34.49	4.69			
26	Fri	90	0.00	Cloudy	4.973	3.659	24	7.5	292	16	248	229	1.5	250	91	2,760	18	2.0	270	97	2,770	18	0.160	4,840	14	30.36	3.86	10,575	8,200	22
27	Sat	89	0.00	Clear	4.957	3.683	23	7.4	275	20			1.8	250				2.9	250				0.160							
28	Sun	92	0.00	Clear	4.832	3.568	23	7.4	273	20			1.7	260				2.6	250				0.160							
29	Mon	95	0.00	Clear	4.945	3.486	23	7.6	302	18	228	210	1.3	200	73	2,740	19	1.8	200	77	2,590	18	0.160	4,440	13	31.08	3.67	8,850	9,150	
30	Tue	97	0.00	Clear	5.157	3.204	25	7.5	299	16	276	250	0.9	250	93	2,680	15	1.4	250	94	2,660	15	0.160	4,900	15	53.93	7.34			
31	Wed	97	0.00	Clear	5.017	3.229	24	7.5	294	18	252	217	1.0	250	97	2,590	16	1.9	240	90	2,680	17	0.160	4,720	14	29.98	3.81			
TOTAL :			2.65		160.614																		4.960			506.74	66.57			
MIN :		82	0.00		4.703	3.204	22	7.3	202	13	166	194	0.9		73	2,390	11	0.9		77	2,260	11	0.160	3,570	13	40.00				19
MAX :		101	0.86		5.771	4.477	25	7.6	303	35	348	304	3.2		174	4,740	28	3.2		172	3,110	26	0.160	5,630	16	53.93	7.34			100
AVG :		92			5.181	3.826	23			18	244	229			122	2,780				121	2,732		0.160	4,599	15	26.67	3.50			40

	FINAL EFFLUENT																	
Date	°C	D.O. (mg/L)	TDS (mg/L)	TDS (lbs)	pH	Alk.	TSS (mg/L)	TSS (lbs)	BOD (mg/L)	BOD (lbs)	Hg (mg/L)	Hg (lbs.)	E Coli	Cl2 Res	CL2 lbs/day	Effl. Flow (MGD)	Non-Potable (MGD)
1	25	6.7	445	12,578	7.5	115	2.00	56.53	2.00	56.53	0.00005	0.0014	1.0	0.02	0	3.389	0.215
2	25	6.6			7.5	128	2.00	62.33	2.00	62.33			1.0	0.03	0	3.737	0.236
3	24	6.6			7.5	123	2.00	60.43	2.00	60.43				0.03	0	3.623	0.234
4	24	6.4			7.5	117	2.00	53.24	2.00	53.24				0.03	0	3.192	0.219
5	24	6.8			7.5	112								0.03	0	3.714	0.189
6	23	6.6			7.4	100								0.03	0	3.724	0.214
7	23	6.7			7.4	96	2.00	53.66	2.00	53.66				0.02	0	3.217	0.180
8	24	6.9			7.4	102	2.00	68.70	2.00	68.70			1.0	0.02	0	4.119	0.183
9	24	6.8			7.5	112	2.00	69.74	2.00	69.74			1.0	0.02	0	4.181	0.204
10	22	6.9			7.5	115	2.00	60.33	2.00	60.33				0.02	0	3.617	0.214
11	25	6.8			7.4	108	2.00	57.80	2.00	57.80				0.03	0	3.465	0.207
12	26	7.0			7.4	110								0.03	0	4.031	0.189
13	25	7.0			7.4	101								0.02	0	3.769	0.219
14	24	6.6			7.4	84	2.00	57.25	2.40	68.69				0.02	0	3.432	0.220
15	24	6.6			7.4	98	2.00	59.83	2.00	59.83			13.2	0.02	0	3.587	0.218
16	25	6.4			7.5	121	2.00	59.73	2.30	68.69			2.0	0.02	0	3.581	0.202
17	24	6.4			7.5	110	2.00	58.26	2.10	61.18				0.02	0	3.493	0.219
18	25	6.6			7.4	124	2.00	58.91	2.00	58.91				0.03	0	3.532	0.209
19	24	7.0			7.4	100								0.03	0	3.114	0.203
20	23	6.7			7.4	87								0.02	0	2.940	0.190
21	23	6.7			7.4	87	2.00	54.59	3.20	87.35				0.02	0	3.273	0.174
22	24	7.1			7.4	96	2.00	64.94	2.30	74.68			6.2	0.02	0	3.893	0.169
23	25	6.7			7.4	98	2.00	59.40	2.30	68.31			1.0	0.04	0	3.561	0.207
24	25	6.8			7.4	101	2.00	50.26	2.20	55.28				0.03	0	3.013	0.218
25	25	6.7			7.3	90	2.00	53.78	2.10	56.47				0.02	0	3.224	0.169
26	25	6.6			7.3	91								0.02	0	3.328	0.214
27	25	6.5			7.3	82								0.02	0	3.257	0.216
28	25	6.5			7.3	80	2.00	53.89	5.60	150.90				0.02	0	3.231	0.170
29	25	6.2			7.4	104	2.00	57.06	3.40	97.01			1.0	0.03	0	3.421	0.174
30	26	6.4			7.4	114	2.00	73.83	2.50	92.28			24.6	0.02	0	4.426	0.213
31	26	6.6			7.4	102	2.00	57.21	2.60	74.38				0.02	0	3.430	0.231
TOTAL :													2.3		0	109.514	6.319
MIN :	22	6.2			7.3	80	2.00		2.00				1.0	0.02		2.940	0.169
MAX :	26	7.1	445		7.5	128	2.00		3.22		0.05000		24.6	0.04		4.426	0.236
AVG :			445	12,578			2.00	59.20	2.39	70.29	0.05000	0.0014				3.533	0.204

NOTES	
Electrical Usage :	48,945
Labor :	40,660
Natural Gas :	164
Chemical, Laboratory Supplies & Services :	10,291
Repairs, Maintenance, Services & Admin. :	26,624
Sludge (Generation & Transportation) :	22,574
TOTAL COSTS :	149,259
COSTS - 1,000 GAL. TREATED :	1.36
Non-Potable Water Use Savings :	5,283

07-04 Started pumping water to Indian Springs.

07-15 Started new BDP belt press. Test sludge for startup.

PARTIAL WEEKLY AVG.NO.'s

Date	Week No.	TSS	BOD
30-Jun		2.00	2.00
1-Aug		2.00	2.00

WEEK	1	2	3	4	5
TSS	2.00	2.00	2.00	2.00	2.00
BOD	2.00	2.00	2.16	2.42	3.22

I hereby certify the above to be correct to the best of my knowledge.

Signed : Lance Handy

Title : *Lynn Lane Water Reclamation Facility Manager (WRF)*