



Case Study 2021

## Los Angeles Area Testing Results Automotive Parts Company



### PROBLEM:

Consistent exceedences to both Copper, TSS and COD Numeric Action Levels (NALs) starting in 2015-2016 with copper exceeding in multiple locations and in every test for the year. 2016-2017 and 2017-2018 were not any better for copper exceedences. Now 2018-2019, Zinc is also showing consistent exceedences.



### SOLUTION:

In early 2019, Downspout treatment boxes, utilizing **BiocharPEAT™** were installed in limited locations to see how well it worked for the site in both 55 Gallon Drums and in 275 Gallon IBC Totes.

Even though there were three individual exceedences for copper in 2019-2020, Zinc showed great reductions but still not passing they upgraded the downspout boxes to larger 275 & 550 Gallon Treatment Tanks at all the downspouts plus one 5000 gallon treatment box with clarifier.

So how well has it worked? In the first half of 2021, the average is running below NALs for both Copper or Zinc.



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**TEST RESULTS:**

Here are test results from the treatment tanks, not the average at the discharge point. Tests are influent (Pre Treatment) and effluent (Post Treatment). Test Results by Pollutant and location for first half of 2021.

Date of Test	Location	Pollutant Tested	% Change	PRE Treatment	Unit of Measure	POST Treatment	Unit of Measure
1/29/21	<b>1</b>	COD	29%	14	mg/L	10	mg/L
3/3/21	<b>1</b>	COD	50%	20	mg/L	10	mg/L
1/29/21	<b>2</b>	COD	52%	21	mg/L	10	mg/L
3/3/21	<b>2</b>	COD	58%	24	mg/L	10	mg/L
1/29/21	<b>3</b>	COD	<b>95%</b>	220	mg/L	10	mg/L
3/3/21	<b>3</b>	COD	76%	41	mg/L	10	mg/L
1/29/21	<b>1</b>	Dissolved Copper	<b>93%</b>	31	µg/L	2.3	µg/L
3/3/21	<b>1</b>	Dissolved Copper	80%	39	µg/L	7.9	µg/L
1/29/21	<b>2</b>	Dissolved Copper	<b>97%</b>	47	µg/L	1.2	µg/L
3/3/21	<b>2</b>	Dissolved Copper	<b>98%</b>	190	µg/L	3.9	µg/L
1/29/21	<b>3</b>	Dissolved Copper	<b>99%</b>	90	µg/L	0.5	µg/L
3/3/21	<b>3</b>	Dissolved Copper	<b>93%</b>	52	µg/L	3.5	µg/L
3/3/21	<b>4</b>	Dissolved Copper	65%	82	µg/L	29	µg/L
3/3/21	<b>2</b>	Dissolved Lead	30%	0.71	µg/L	0.5	µg/L
1/29/21	<b>1</b>	Dissolved Zinc	<b>94%</b>	850	µg/L	52	µg/L
3/3/21	<b>1</b>	Dissolved Zinc	<b>96%</b>	790	µg/L	34	µg/L
1/29/21	<b>2</b>	Dissolved Zinc	<b>98%</b>	2200	µg/L	36	µg/L
3/3/21	<b>2</b>	Dissolved Zinc	<b>98%</b>	3200	µg/L	67	µg/L
1/29/21	<b>3</b>	Dissolved Zinc	<b>99%</b>	3600	µg/L	22	µg/L
3/3/21	<b>3</b>	Dissolved Zinc	<b>97%</b>	1400	µg/L	39	µg/L
3/3/21	<b>4</b>	Dissolved Zinc	88%	2300	µg/L	280	µg/L
1/29/21	<b>1</b>	Cadmium	69%	0.81	µg/L	0.25	µg/L
1/29/21	<b>3</b>	Cadmium	31%	0.36	µg/L	0.25	µg/L
1/29/21	<b>1</b>	Chromium	<b>95%</b>	11	µg/L	0.5	µg/L
3/3/21	<b>2</b>	Chromium	70%	2.5	µg/L	0.74	µg/L
1/29/21	<b>3</b>	Chromium	79%	3.1	µg/L	0.64	µg/L
3/3/21	<b>3</b>	Chromium	<b>90%</b>	5.4	µg/L	0.54	µg/L



**STORMWATER TREATMENT**



1/29/21	<b>1</b>	Copper	<b>100%</b>	670	µg/L	2.4	µg/L
3/3/21	<b>1</b>	Copper	84%	49	µg/L	8	µg/L
1/29/21	<b>2</b>	Copper	<b>98%</b>	52	µg/L	1.3	µg/L
3/3/21	<b>2</b>	Copper	<b>98%</b>	290	µg/L	4.4	µg/L
1/29/21	<b>3</b>	Copper	<b>100%</b>	320	µg/L	0.5	µg/L
3/3/21	<b>3</b>	Copper	25%	110	µg/L	82	µg/L
3/3/21	<b>4</b>	Copper	71%	110	µg/L	32	µg/L
1/29/21	<b>1</b>	Lead	<b>98%</b>	26	µg/L	0.5	µg/L
3/3/21	<b>1</b>	Lead	21%	0.63	µg/L	0.5	µg/L
1/29/21	<b>2</b>	Lead	24%	0.66	µg/L	0.5	µg/L
3/3/21	<b>2</b>	Lead	<b>90%</b>	5	µg/L	0.5	µg/L
1/29/21	<b>3</b>	Lead	<b>96%</b>	14	µg/L	0.5	µg/L
3/3/21	<b>3</b>	Lead	<b>94%</b>	9	µg/L	0.5	µg/L
3/3/21	<b>4</b>	Lead	74%	1.9	µg/L	0.5	µg/L
1/29/21	<b>1</b>	Zinc	<b>99%</b>	4600	µg/L	26	µg/L
3/3/21	<b>1</b>	Zinc	<b>98%</b>	960	µg/L	20	µg/L
1/29/21	<b>2</b>	Zinc	<b>100%</b>	2400	µg/L	7.3	µg/L
3/3/21	<b>2</b>	Zinc	<b>99%</b>	3800	µg/L	26	µg/L
1/29/21	<b>3</b>	Zinc	<b>100%</b>	5700	µg/L	23	µg/L
3/3/21	<b>3</b>	Zinc	<b>100%</b>	2100	µg/L	8.4	µg/L
3/3/21	<b>4</b>	Zinc	<b>90%</b>	2700	µg/L	260	µg/L