CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	24
DateRun:	09/05/2024
Experimenters:	Rachael Rososky
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #2
Substrates:	Stainless Steel
PartType:	Coupon
Contaminants:	Oil
Cleaning Methods:	
Analytical Methods:	Visual
Purpose:	Observe if contact time of GeoProX affects the efficacy of the cleaner on biofouling.
Experimental Procedure:	GeoProX was mixed with water with a ratio of 1.5 grams per 100 mL of water. Two 500 mL beakers were filled with 200 mL of GeoProX mixture (3 grams of GeoProX powder per beaker. Both beakers were put on hot plates with no heat and set to 500 rpm to prevent mixture from separating. All six coupons were immersed in the GeoProX mixture (three white coupons in one beaker and three blue coupons in another). The coupons were visually rated for biofouling after 1 minute, 5 minutes, 10 minutes, 15 minutes, and 20 minutes. Visual ratings are as follows: 1 = no biofouling, 2 = slight biofouling, 3 = noticeable biofouling, 4 = considerable biofouling, 5 = severe biofouling.

Results:

Visual Rating

Substrate	Coupon #	1 minute	5 minutes	10 minutes	15 minutes	20 minutes
A	6	4.5	4.5	4.5	4	4
A	7	4.5	4.5	4.5	4	4
A	8	4.5	4.5	4.5	4	4
B	9	2	2	1.5	1.5	1.5
B	10	2	2	1.5	1.5	1.5
B	11	2	2	1.5	1.5	1.5

Summary:

Conclusion: Cleaner was not effective at removing the soil. The final weights from gravimetric analysis were greater than the initial weights, so this data was omitted. The discrepancy could be due to the cleaner leaving a slight film on the coupon. The cleaner was not miscible with water and it was difficult to keep the mixture from separating. The cleaner eroded the paint off the coupons slightly.