

Certificate of Analysis

Report Date: 8/31/2020

Vessel/Equip	ment: Web 241 & 248	File Number	:		98	697-21	6			
Shore Tank:	216	Lab Number	Lab Number:			083020-004				
Product:	CSO/MCB	Client:	Client:			ExxonMobil				
Terminal:	PFT, Mt. Airy	Client Refere	Client Reference:		4986215					
Subject:	Discharge									
Sample type:	First Foot	Sample Loca	Sample Location:		S	T 216				
				Spec						
Method	Component	Result	<u>Units</u>	Min	- N	1ax	Off-Spec			
Method	Component	resuit	Office	IVIIII	10	<u>107.</u>				
D5705	Hydrogen Sulfide (Vapor Phase)	<5	ppm	IVIIII	-	<u>IUX</u>	o op oo			

Sample type:	Composite	Sample Location:		ST 216			
					Spec		
Method	<u>Component</u>	<u>Result</u>	<u>Units</u>	Min	-	Max	Off-Spec
D4052	API Gravity at 60°F	-2.2			-	-2.5	
D4294	Sulfur Content	2.22	wt%		-	3.0	
D2161	Viscosity-SUS at 210°F	97.21	SUS		-	110	
D93B	Flash Point	176	°F	170	-		
D482	Ash Content	0.043	mass%		-	0.08	
D97	Pour Point	15	°C		-		
D97	Pour Point	59	°F		-		
IP143	Asphaltenes	1.90	%(m/m)		-	8	
D4530	Micro Carbon Residue Test	8.15	%(m/m)		-		
D473	Sediment by Extraction	0.04	%m/m				
D95	Water by Distillation	<0.05	vol%		-	0.20	
D4870	Total Sediment by Hot Filtration	0.10	mass%		-		
IP501	Aluminum	77	ppm		-		
IP501	Silicon	102	ppm		-		
IP501	Vanadium	1.6	ppm		-		
IP501	Sodium	4.1	ppm		-		
IP501M	Potassium	0.8	ppm		-		
D5291	Carbon	89.99	wt%	89	-		
D5291	Hydrogen	7.61	wt%		-	8	
PPCO-7317-l	BH BMCI	128.2		125	-		

Signed:

Aaron Manguno Laboratory Supervisor Reviewed by:

Glenn Hanson VP of Laboratories