

FUEL REPORT

NORMAL

Area Louisville [Louisville] Diesel - #1 Starboard

Diesel Fuel

Fluid No.2 DIESEL FUEL (ULTRALOW SULPHUR) (14294 GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample. No corrective action is recommended at this time.

Corrosion

All metal levels are normal indicating no corrosion in the system.

Contaminants

The water content is negligible. There is no indication of any contamination in the fuel.

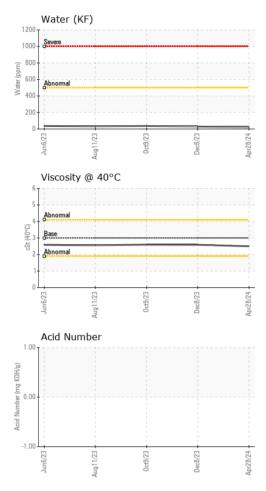
Fuel Condition

The condition of the fuel is acceptable for the time in service.

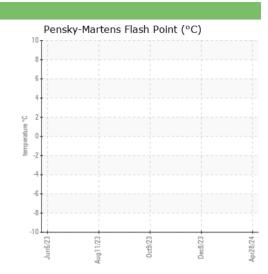
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0874755	WC0859803	WC0805359
Sample Date		Client Info		28 Apr 2024	08 Dec 2023	09 Oct 2023
Machine Age	hrs	Client Info		0	0	0
Sample Status				NORMAL	NORMAL	NORMAL
PHYSICAL PROP	ERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	3.0	2.5	2.59	2.6
SULFUR CONTER	NT	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	10	0	0	19
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	0	0	0
Sodium	ppm	ASTM D5185m	<0.1	1	0	<1
Potassium	ppm	ASTM D5185m	<0.1	0	0	<1
Water	%	ASTM D6304	<0.05	0.002	0.003	0.003
ppm Water	ppm	ASTM D6304	<500	22	29	36.1
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	0	0	0
N H H H			0 1	-		
Nickel	ppm	ASTM D5185m	<0.1	0	0	<1
Nickel Lead	ppm ppm	ASTM D5185m ASTM D5185m	<0.1 <0.1	0 0	0 <1	<1 0
				-		
Lead	ppm	ASTM D5185m	<0.1	0	<1	0
Lead Vanadium	ppm ppm	ASTM D5185m ASTM D5185m	<0.1 <0.1	0	<1 <1	0
Lead Vanadium Iron	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1	0 0 0 0 0	<1 <1 0	0 0 0
Lead Vanadium Iron Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1	0 0 0 0 0 0	<1 <1 0 0	0 0 <1 2 <1
Lead Vanadium Iron Calcium Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1	0 0 0 0 0	<1 <1 0 0 0	0 0 0 <1 2
Lead Vanadium Iron Calcium Magnesium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 0 0 0 0 0	<1 <1 0 0 0 0	0 0 <1 2 <1
Lead Vanadium Iron Calcium Magnesium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	<0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1 <0.1	0 0 0 0 0 0 0	<1 <1 0 0 0 0 0 0	0 0 <1 2 <1 0



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GRAPHS



MARATHON PETROLEUM CO. Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0874755 Received : 16 May 2024 101 12TH ST Lab Number : 06181887 Tested : 20 May 2024 CATLETTSBURG, KY Unique Number : 11033213 Diagnosed : 20 May 2024 - Angela Borella US 41169 Test Package : IND 2 (Additional Tests: KF) Contact: CORY GUMBERT Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. cagumbert@marathonpetroleum.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (606)585-3950 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Submitted By: M/V LOUISVILLE Page 2 of 2