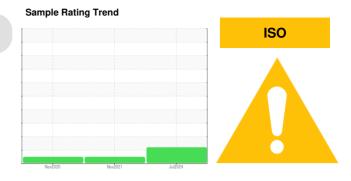


FUEL REPORT

Paul G. Blazer [Paul G. Blazer] Diesel - #3 Port

Diesel Fuel

No.2 DIESEL FUEL (ULTRALOW SULPHUR) (21617 GAL)



DIAGNOSIS

Recommendation

We advise that you filter this fluid before use. All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel.

Corrosion

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

Contaminants

There is a moderate amount of particulates present in the fuel. The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample.

Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation. Sulfur level is acceptable for ULSD specification.

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|-----------------|--------|--------------|------------|--------------|-------------|-------------|
| Sample Number | | Client Info | | WC0600234 | WC0600204 | RP199260 |
| Sample Date | | Client Info | | 09 Jul 2024 | 28 Nov 2021 | 03 Nov 2020 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
| PHYSICAL PROP | ERTIES | method | limit/base | current | history1 | history2 |
| ASTM Color | scalar | *ASTM D1500 | | L4.5 | L5.0 | |
| Visc @ 40°C | cSt | ASTM D445 | 3.0 | 2.46 | 2.38 | 2.23 |
| SULFUR CONTENT | | method | limit/base | current | history1 | history2 |
| Sulfur | ppm | ASTM D5185m | 10 | 4 | 3 | 0 |
| Sulfur (UVF) | ppm | ASTM D5453 | | 8 | 6 | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | <1.0 | <1 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | < 0.1 | <1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m | < 0.1 | 0 | <1 | 0 |
| Water | % | ASTM D6304 | < 0.05 | 0.003 | 0.004 | 0.003 |
| ppm Water | ppm | ASTM D6304 | < 500 | 34 | 40.5 | 35.7 |
| % Gasoline | % | *In-House | < 0.50 | 0.0 | 0.0 | |
| % Biodiesel | % | *In-House | <20.0 | 0.0 | 1.8 | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >2500 | 4413 | 1996 | |
| Particles >6µm | | ASTM D7647 | >640 | <u>^</u> 896 | 373 | |
| Particles >14μm | | ASTM D7647 | >80 | 59 | 25 | |
| Particles >21µm | | | | 12 | 6 | |
| Particles >38µm | | ASTM D7647 | >4 | 1 | 0 | |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | |
| Oil Cleanliness | | ISO 4406 (c) | >18/16/13 | <u> </u> | 18/16/12 | |
| HEAVY METALS | | method | limit/base | current | history1 | history2 |
| Aluminum | ppm | ASTM D5185m | <0.1 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | < 0.1 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185m | <0.1 | 0 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | <0.1 | 0 | 0 | <1 |
| Iron | ppm | ASTM D5185m | <0.1 | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | <0.1 | 2 | 0 | <1 |
| Phosphorus | ppm | ASTM D5185m | <0.1 | <1 | 5 | 0 |
| Zinc | ppm | ASTM D5185m | <0.1 | 1 | 0 | 0 |

SAMPLE IMAGES method limit/base history2

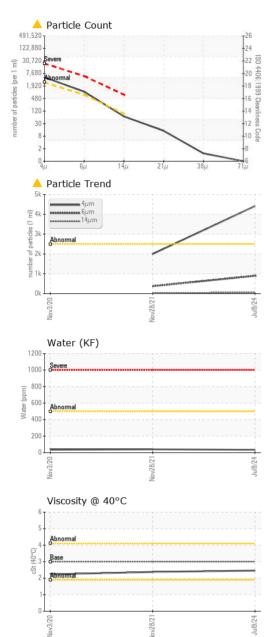
Color



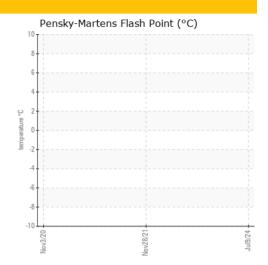




FUEL REPORT



GRAPHS





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No.

: WC0600234 Lab Number : 06239531 Unique Number : 11128365

Received **Tested** Diagnosed

: 17 Jul 2024 : 18 Jul 2024 : 19 Jul 2024 - Elizabeth Valachovic

101 12TH ST CATLETTSBURG, KY US 41169

MARATHON PETROLEUM CO.

Test Package : DF-5 (Additional Tests: Screen) Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Contact: CORY GUMBERT cagumbert@marathonpetroleum.com T: (606)585-3950

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Report Id: MARCAT [WUSCAR] 06239531 (Generated: 07/19/2024 11:59:10) Rev: 1

Submitted By: M/V PAUL BLAZER

F: x: