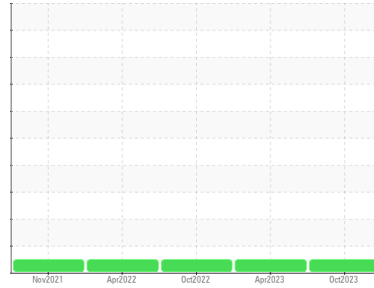




FUEL REPORT

Sample Rating Trend

NORMAL



Machine Id

C

Component

Diesel Fuel

Fluid

No.1 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

DIAGNOSIS

Recommendation

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

The water content is negligible. There is no bacteria or fungus (yeast and/or mold) indicated in the sample. There is no indication of any contamination in the fuel.

Fuel Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0873528	WC0812013	WC0750384
Sample Date	Client Info			31 Oct 2023	18 Apr 2023	10 Oct 2022
Machine Age	hrs	Client Info		0	0	0
Sample Status				NORMAL	NORMAL	NORMAL

PHYSICAL PROPERTIES		method	limit/base	current	history1	history2
ASTM Color	scalar	*ASTM D1500		L4.0	L4.0	L4.0
Visc @ 40°C	cSt	ASTM D445		2.5	2.46	2.46

SULFUR CONTENT		method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	7	0	<1	0
Sulfur (UVF)	ppm	ASTM D5453		9	10	8

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<1	<1	1
Sodium	ppm	ASTM D5185m	<0.1	2	0	1
Potassium	ppm	ASTM D5185m	<0.1	<1	<1	0
Water	%	ASTM D6304	<0.05	0.005	0.004	0.004
ppm Water	ppm	ASTM D6304	<500	50.1	40.9	48.6
% Gasoline	%	*In-House	<0.50	0.0	0.0	0.0
% Biodiesel	%	*In-House	<20.0	1.2	1.3	0.0

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	812	975	2268
Particles >6µm		ASTM D7647	>640	318	354	693
Particles >14µm		ASTM D7647	>80	56	49	145
Particles >21µm		ASTM D7647	>20	22	15	57
Particles >38µm		ASTM D7647	>4	2	2	4
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	17/15/13	17/16/13	18/17/14

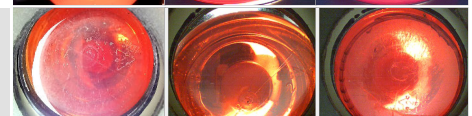
HEAVY METALS		method	limit/base	current	history1	history2
Aluminum	ppm	ASTM D5185m	<0.1	0	0	<1
Nickel	ppm	ASTM D5185m	<0.1	<1	0	<1
Lead	ppm	ASTM D5185m	<0.1	<1	0	0
Vanadium	ppm	ASTM D5185m	<0.1	0	0	1
Iron	ppm	ASTM D5185m	<0.1	0	0	0
Calcium	ppm	ASTM D5185m	<0.1	<1	0	0
Magnesium	ppm	ASTM D5185m	<0.1	0	0	0
Phosphorus	ppm	ASTM D5185m	<0.1	3	0	0
Zinc	ppm	ASTM D5185m	<0.1	0	0	0

SAMPLE IMAGES		method	limit/base	current	history1	history2
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Color

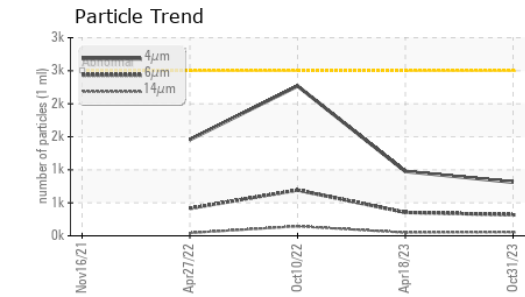
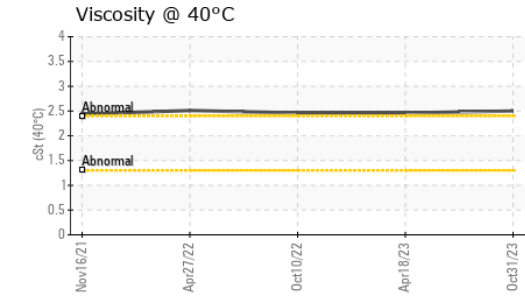
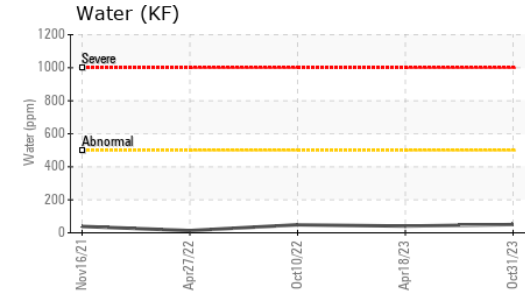
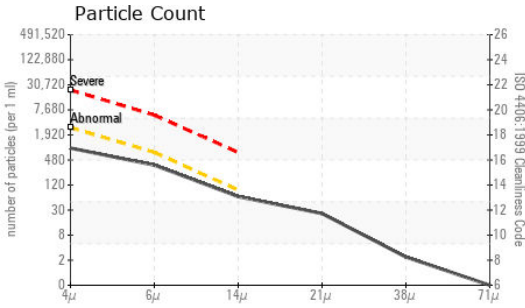


Bottom

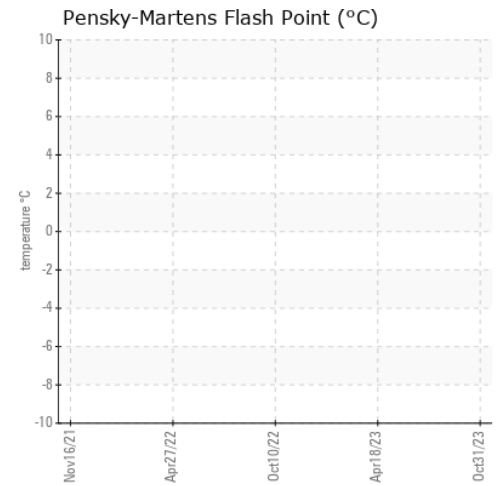




FUEL REPORT



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0873528 **Received** : 31 Oct 2023
Lab Number : 05995175 **Diagnosed** : 13 Nov 2023
Unique Number : 10723535 **Diagnostician** : Doug Bogart
Test Package : DF-5 (Additional Tests: Screen)

NALCO AN ECOLAB COMPANY
 1304 SEATON ROAD UNIT 8
 DURHAM, NC
 US 27707
 Contact: SHAWN SMITH
 shawn.smith@ecolab.com

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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:
F: