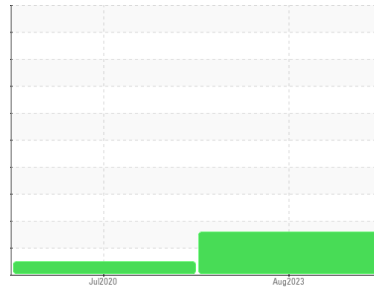




FUEL REPORT

Sample Rating Trend



ISO



Machine Id
KBI BIOPHARMA

Component
Diesel Fuel
Fluid

No.2 DIESEL FUEL (LOW-SULPHUR) (--- QTS)

DIAGNOSIS

▲ Recommendation

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

Corrosion

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

▲ Contaminants

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

Fuel Condition

Sulfur value derived by ASTM D5453 method for ULSD validation.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC05925209	WC05020337	---
Sample Date	Client Info		15 Aug 2023	14 Jul 2020	---
Machine Age	hrs	Client Info	0	0	---
Sample Status			ATTENTION	NORMAL	---

PHYSICAL PROPERTIES

	method	limit/base	current	history1	history2
Specific Gravity	*ASTM D1298	0.839	0.843	0.845	---
Fuel Color	text	*Visual Screen	Red	Red	---
ASTM Color	scalar	*ASTM D1500	L4.0	L6.0	---
Visc @ 40°C	cSt	ASTM D445	2.46	2.49	---
Pensky-Martens Flash Point	°C	*PMCC Calculated	60	61	---

SULFUR CONTENT

	method	limit/base	current	history1	history2
Sulfur	ppm	ASTM D5185m	30	175	---
Sulfur (UVF)	ppm	ASTM D5453	83	135	---

DISTILLATION

	method	limit/base	current	history1	history2	
Initial Boiling Point	°C	ASTM D86	165	167	161	---
5% Distillation Point	°C	ASTM D86		190	189	---
10% Distill Point	°C	ASTM D86	201	201	202	---
15% Distillation Point	°C	ASTM D86		211	211	---
20% Distill Point	°C	ASTM D86	216	219	220	---
30% Distill Point	°C	ASTM D86	230	233	234	---
40% Distill Point	°C	ASTM D86	243	247	248	---
50% Distill Point	°C	ASTM D86	255	261	262	---
60% Distill Point	°C	ASTM D86	267	276	276	---
70% Distill Point	°C	ASTM D86	280	291	291	---
80% Distill Point	°C	ASTM D86	295	307	307	---
85% Distillation Point	°C	ASTM D86		316	316	---
90% Distill Point	°C	ASTM D86	310	327	327	---
95% Distillation Point	°C	ASTM D86		343	343	---
Final Boiling Point	°C	ASTM D86	341	351	351	---
Distillation Residue	%	ASTM D86	3.0	1.4	1.4	---
Distillation Loss	%	ASTM D86	3.0	0.7	0.8	---

IGNITION QUALITY

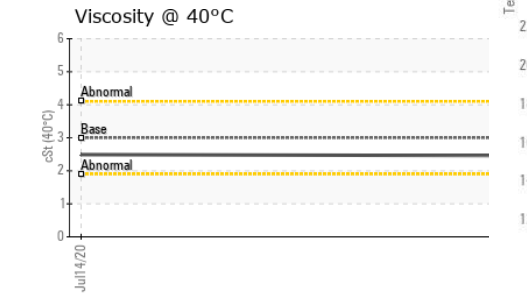
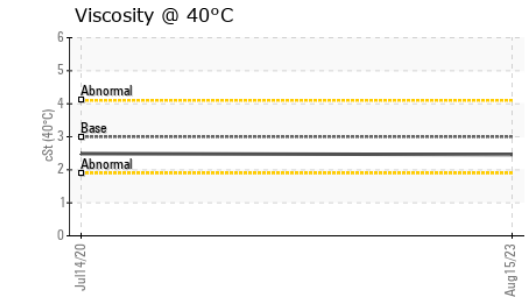
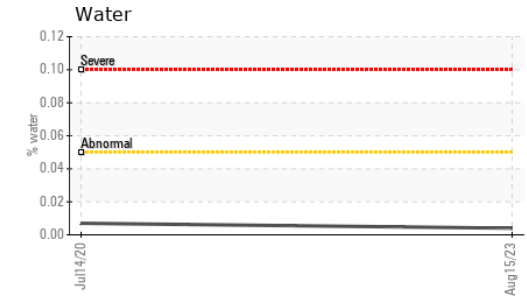
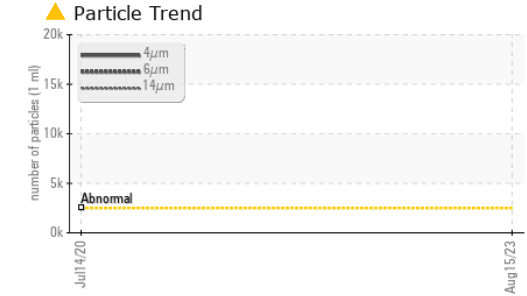
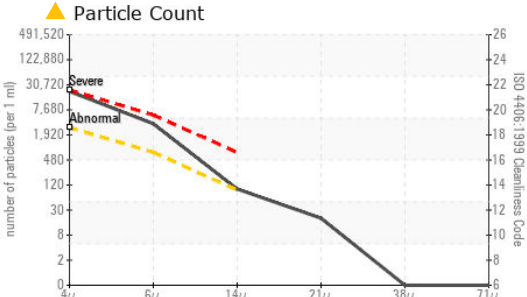
	method	limit/base	current	history1	history2
API Gravity	ASTM D7777	37.7	36.4	36.0	---
Cetane Index	ASTM D4737	<40.0	47.6	46.8	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	<1.0	<1	<1
Sodium	ppm	ASTM D5185m	<0.1	0	0
Potassium	ppm	ASTM D5185m	<0.1	0	0
Water	%	ASTM D6304	<0.05	0.004	0.007
ppm Water	ppm	ASTM D6304	<500	41.0	73.7
% Gasoline	%	*In-House	<0.50	0.0	0.0
% Biodiesel	%	*In-House	<20.0	1.6	1.8



FUEL REPORT

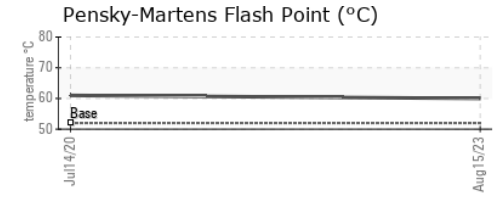
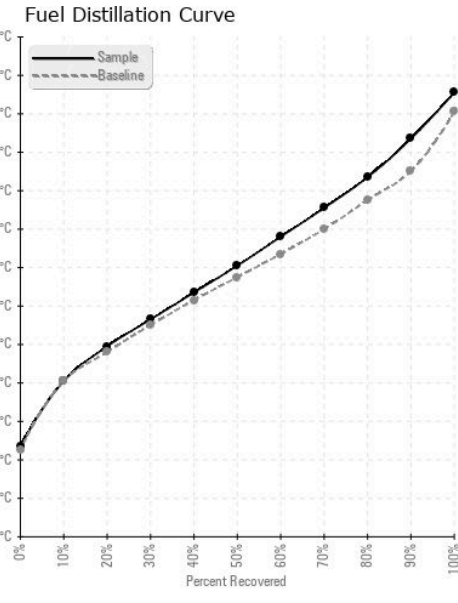


FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>2500	▲ 18425	---	---
Particles >6µm	ASTM D7647	>640	▲ 3108	---	---
Particles >14µm	ASTM D7647	>80	▲ 85	---	---
Particles >21µm	ASTM D7647	>20	17	---	---
Particles >38µm	ASTM D7647	>4	0	---	---
Particles >71µm	ASTM D7647	>3	0	---	---
Oil Cleanliness	ISO 4406 (c)	>18/16/13	▲ 21/19/14	---	---

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

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC05925209 **Received** : 15 Aug 2023
Lab Number : 05925209 **Diagnosed** : 23 Aug 2023
Unique Number : 10605156 **Diagnostician** : Doug Bogart
Test Package : DF-2 (Additional Tests: Screen)

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 US 27705
 Contact: JESSE BROWN
 jesse@couchoilcompany.com
 T: (919)285-5408
 F:

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)