

Machine Id
VICTORIA 1
 Component
1 Diesel Fuel
 Fluid
No.2 DIESEL FUEL (ULTRALOW SULPHUR) (--- GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. Laboratory test indicate that this fuel is suitable for use and meets all test requirements. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you filter this fluid before use. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

CORROSION

{not applicable}

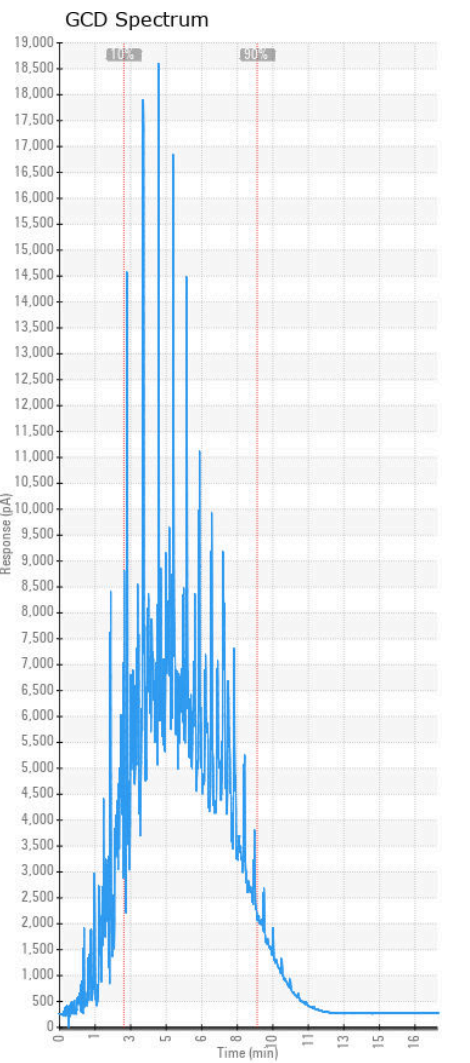
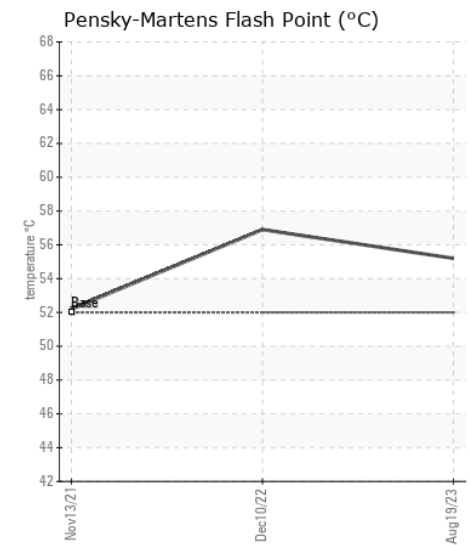
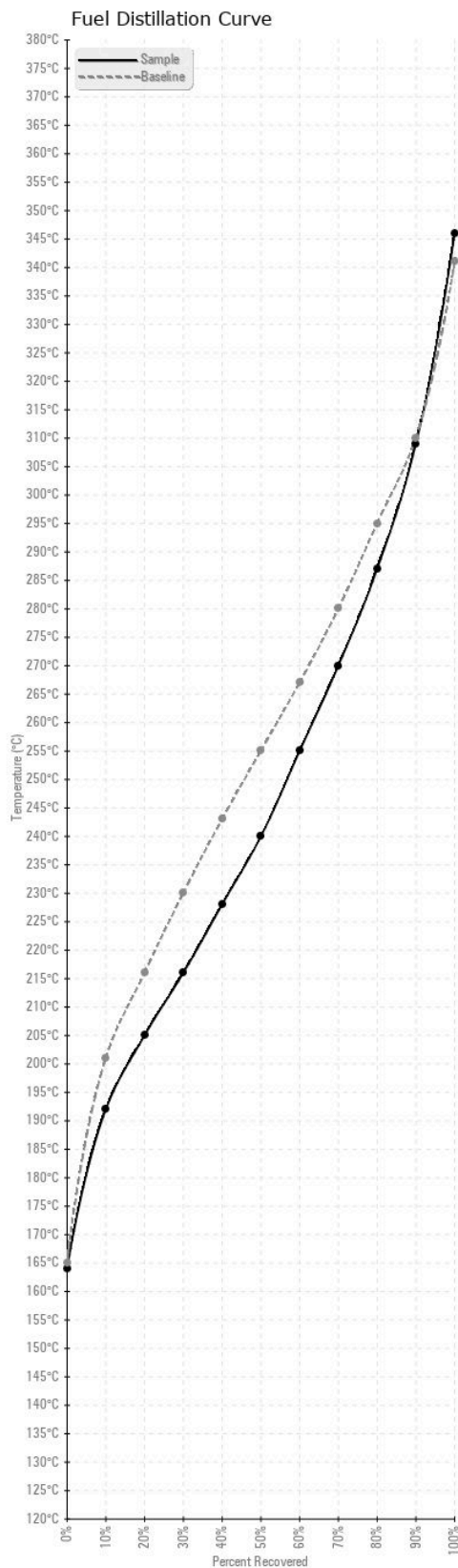
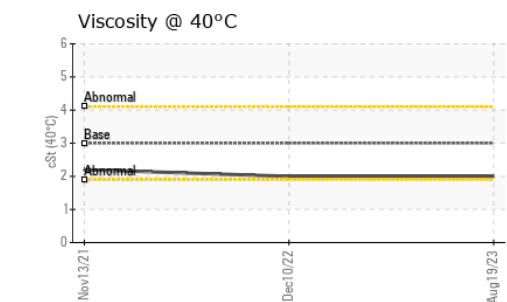
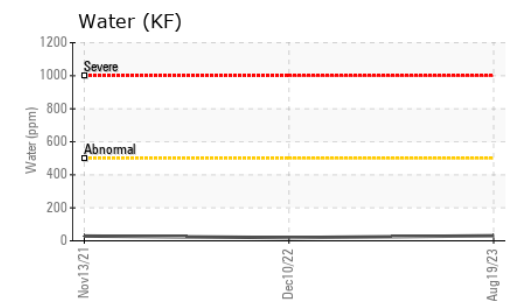
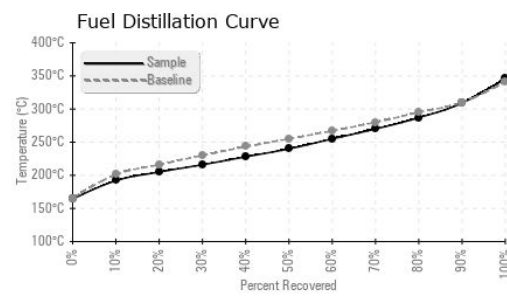
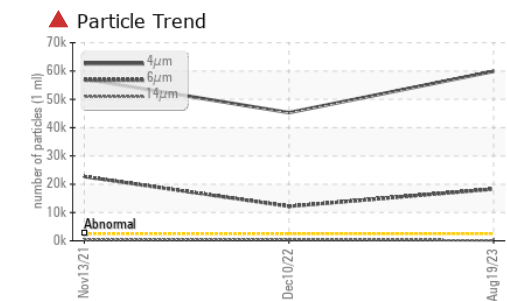
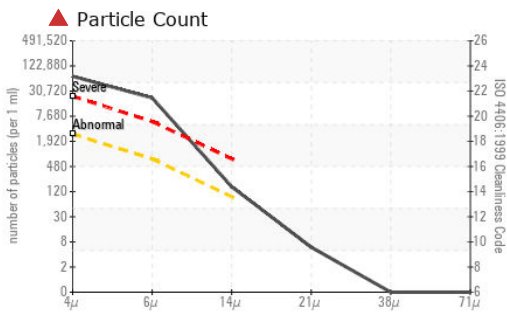
CONTAMINANTS

There is a high amount of silt (particulates < 14 microns in size) present in the fuel. The water content is negligible.

FUEL CONDITION

All laboratory tests indicate that this sample meets specifications for No.2 ultra-low-sulfur diesel fuel (US EPA/CGSB-3.517-3 type B). The fuel is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU	CU0019858	CU0018642
Sample Date		Client Info		19 Aug 2023	10 Dec 2022	13 Nov 2021
Machine Age	hrs	Client Info		328	0	628
Sample Status				SEVERE	SEVERE	SEVERE
Aluminum	ppm	ASTM D5185(m)	<0.1	0	0	0
Nickel	ppm	ASTM D5185(m)	<0.1	0	0	0
Lead	ppm	ASTM D5185(m)	<0.1	<1	<1	<1
Vanadium	ppm	ASTM D5185(m)	<0.1	0	0	0
Iron	ppm	ASTM D5185(m)	<0.1	<1	<1	<1
Silicon	ppm	ASTM D5185(m)	<1.0	0	0	0
Sodium	ppm	ASTM D5185(m)	<0.1	<1	0	<1
Potassium	ppm	ASTM D5185(m)	<0.1	<1	0	0
Water	%	ASTM D6304*	<0.05	0.003	0.002	0.003
ppm Water	ppm	ASTM D6304*	<500	30.9	19.3	29.0
Particles >4µm		ASTM D7647	>2500	▲ 59910	▲ 45295	▲ 57132
Particles >6µm		ASTM D7647	>640	▲ 18304	▲ 12179	▲ 22687
Particles >14µm		ASTM D7647	>80	● 139	▲ 417	▲ 309
Particles >21µm		ASTM D7647	>20	5	▲ 45	8
Particles >38µm		ASTM D7647	>4	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 23/21/14	▲ 23/21/16	▲ 23/22/15
Calcium	ppm	ASTM D5185(m)	<0.1	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	<0.1	0	<1	<1
Phosphorus	ppm	ASTM D5185(m)	<0.1	0	0	<1
Zinc	ppm	ASTM D5185(m)	<0.1	0	<1	<1
Specific Gravity		ASTM D1298*	0.839	0.824	0.828	0.835
Fuel Color	text	Visual Screen*	Yellow	Red	Pink	Pink
Visc @ 40°C	cSt	ASTM D7279(m)	3.0	2	2	2.2
Pensky-Martens Flash Point	°C	ASTM D7215*	52	55.2	56.9	52.2
Sulfur	ppm	ASTM D5185(m)	10	8	8	9
Initial Boiling Point	°C	ASTM D2887*	165	164	166	155
10% Distill Point	°C	ASTM D2887*	201	192	194	188
20% Distill Point	°C	ASTM D2887*	216	205	209	204
30% Distill Point	°C	ASTM D2887*	230	216	222	219
40% Distill Point	°C	ASTM D2887*	243	228	236	233
50% Distill Point	°C	ASTM D2887*	255	240	249	248
60% Distill Point	°C	ASTM D2887*	267	255	262	263
70% Distill Point	°C	ASTM D2887*	280	270	276	277
80% Distill Point	°C	ASTM D2887*	295	287	291	293
90% Distill Point	°C	ASTM D2887*	310	309	311	316
Final Boiling Point	°C	ASTM D2887*	341	346	345	346
API Gravity		ASTM D1298*	37.7	40	39	37
Cetane Index		ASTM D4737*	<40.0	49	50	47



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU
Lab Number : 02578274
Unique Number : 5631334
Test Package : FUEL (Additional Tests: CC Flash, GC-PercFuel, PrtCount)

Received : 24 Aug 2023
Tested : 28 Aug 2023
Diagnosed : 28 Aug 2023 - Kevin Marson

CUMMINS EASTERN CANADA LP
 3189 SWANSEA CRESCENT
 OTTAWA, ON
 CA K1G 3W5
 Contact: Cindy Harrison
 cindy.harrison@cummins.com

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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