



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
DL201929
Component
Diesel Engine
Fluid
{not provided} (--- QTS)

RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0007731	---	---
Sample Date		Client Info		06 Jun 2023	---	---
Machine Age	mls	Client Info		52195	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>100	▲ 146	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>4	<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	0	---	---
Aluminum	ppm	ASTM D5185m	>20	46	---	---
Lead	ppm	ASTM D5185m	>40	8	---	---
Copper	ppm	ASTM D5185m	>330	5	---	---
Tin	ppm	ASTM D5185m	>15	<1	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

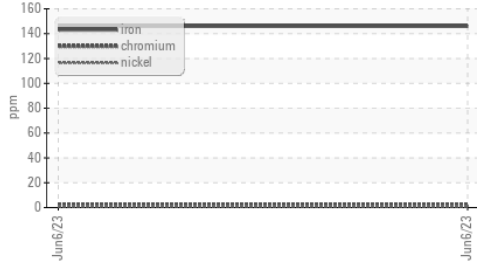
Silicon	ppm	ASTM D5185m	>25	10	---	---
Potassium	ppm	ASTM D5185m	>20	132	---	---
Fuel	%	ASTM D3524	>5	1.2	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.3	---	---
Nitration	Abs/cm	*ASTM D7624	>20	6.8	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.1	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---

FLUID CONDITION

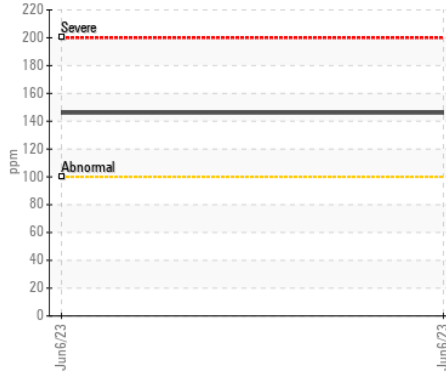
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		10	---	---
Boron	ppm	ASTM D5185m		11	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		4	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		22	---	---
Calcium	ppm	ASTM D5185m		2348	---	---
Phosphorus	ppm	ASTM D5185m		919	---	---
Zinc	ppm	ASTM D5185m		1063	---	---
Sulfur	ppm	ASTM D5185m		4485	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		12.25	---	---
Visc @ 100°C	cSt	ASTM D445		11.1	---	---

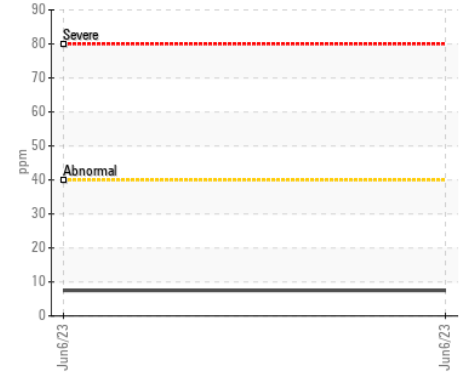
▲ Ferrous Alloys



▲ Iron (ppm)



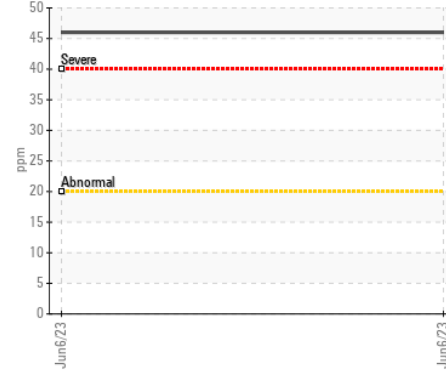
Lead (ppm)



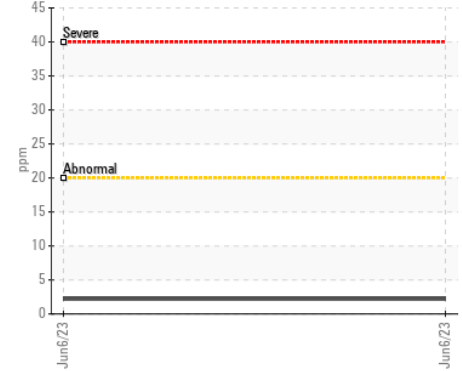
Fuel Dilution



Aluminum (ppm)



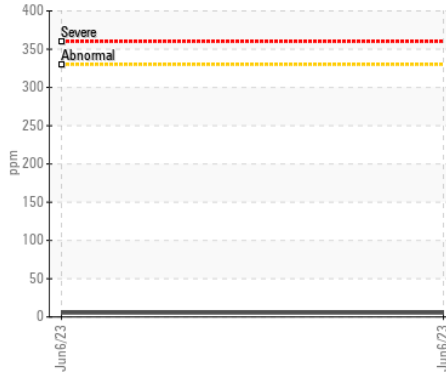
Chromium (ppm)



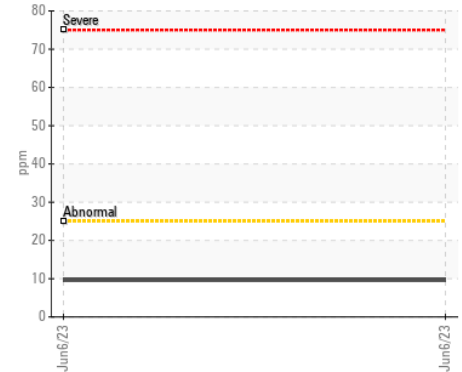
Base Number



Copper (ppm)



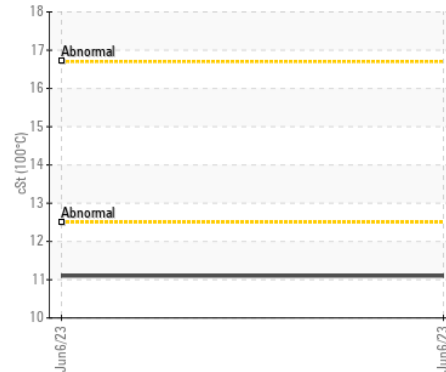
Silicon (ppm)



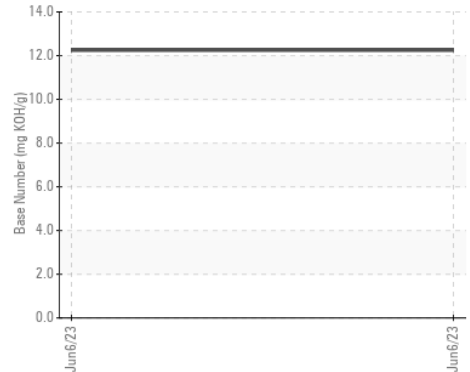
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0007731 **Received** : 09 Jun 2023
Lab Number : 05870459 **Tested** : 13 Jun 2023
Unique Number : 10510243 **Diagnosed** : 13 Jun 2023 - Doug Bogart
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

SPINIELLO COMPANIES
 3500 E BIDDLE ST
 BALTIMORE, MD
 US 21213
 Contact: G HARRELL
 gharrell@spiniello.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: (410)243-6529