CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
2H28
Machine Id
CHEVROLET CK56043 SILVERADO 55 FBK6838 (S/N 1HTKJPVK7PH223515)
Component
Diesel Engine
Fluid
{not provided} (--- QTS)

RECOMMENDATION

We advise that you check the fuel injection system. We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

WEAR

The copper level is abnormal. Cylinder, crank, or cam shaft wear is indicated. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

CONTAMINATION

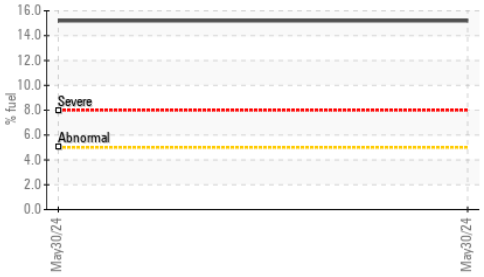
There is a high amount of fuel present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

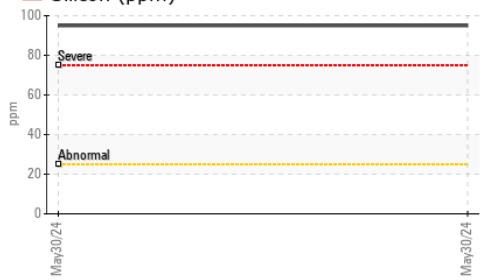
Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		ARI0007878	---	---
Sample Date		Client Info		30 May 2024	---	---
Machine Age	mls	Client Info		0	---	---
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				SEVERE	---	---
Iron	ppm	ASTM D5185m	>100	▲ 102	---	---
Chromium	ppm	ASTM D5185m	>20	2	---	---
Nickel	ppm	ASTM D5185m	>4	0	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	<1	---	---
Aluminum	ppm	ASTM D5185m	>20	● 16	---	---
Lead	ppm	ASTM D5185m	>40	10	---	---
Copper	ppm	ASTM D5185m	>330	▲ 428	---	---
Tin	ppm	ASTM D5185m	>15	10	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 95	---	---
Potassium	ppm	ASTM D5185m	>20	42	---	---
Fuel	%	ASTM D3524	>5	▲ 15.2	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	0.9	---	---
Nitration	Abs/cm	*ASTM D7624	>20	12.1	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	---	---
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	---	---
Sodium	ppm	ASTM D5185m		7	---	---
Boron	ppm	ASTM D5185m		36	---	---
Barium	ppm	ASTM D5185m		2	---	---
Molybdenum	ppm	ASTM D5185m		2	---	---
Manganese	ppm	ASTM D5185m		3	---	---
Magnesium	ppm	ASTM D5185m		654	---	---
Calcium	ppm	ASTM D5185m		1145	---	---
Phosphorus	ppm	ASTM D5185m		927	---	---
Zinc	ppm	ASTM D5185m		1064	---	---
Sulfur	ppm	ASTM D5185m		3008	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	22.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.9	---	---
Visc @ 100°C	cSt	ASTM D445		▲ 10.3	---	---

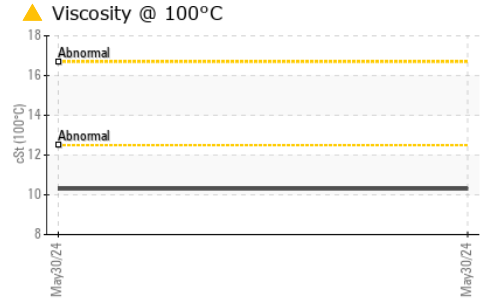
Fuel Dilution



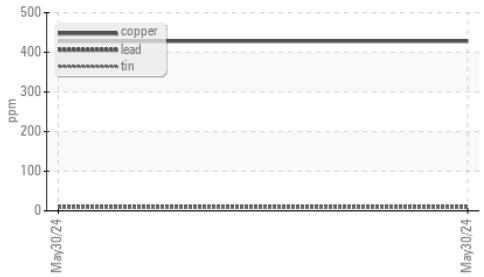
Silicon (ppm)



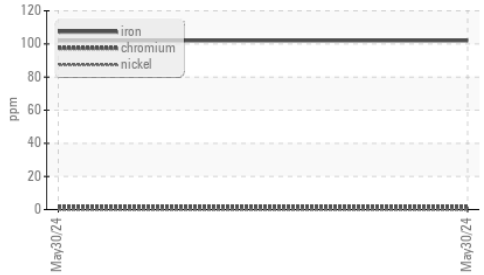
Viscosity @ 100°C



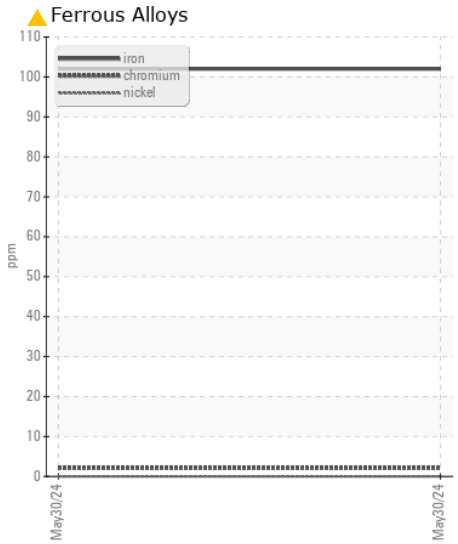
Non-ferrous Metals



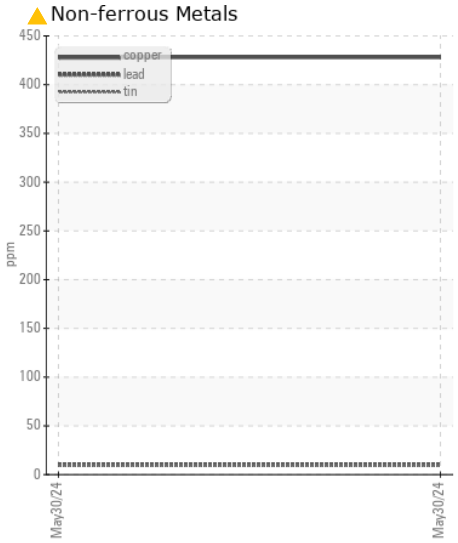
Ferrous Alloys



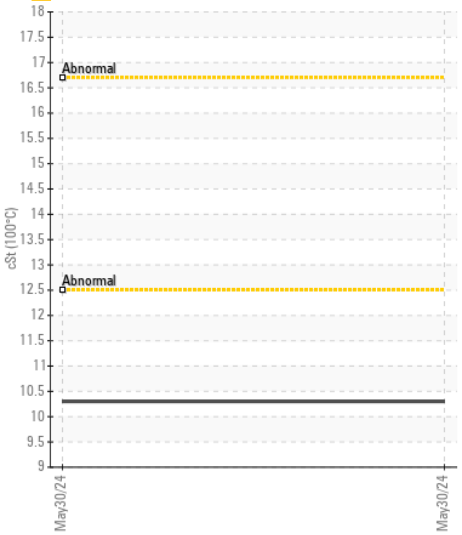
Ferrous Alloys



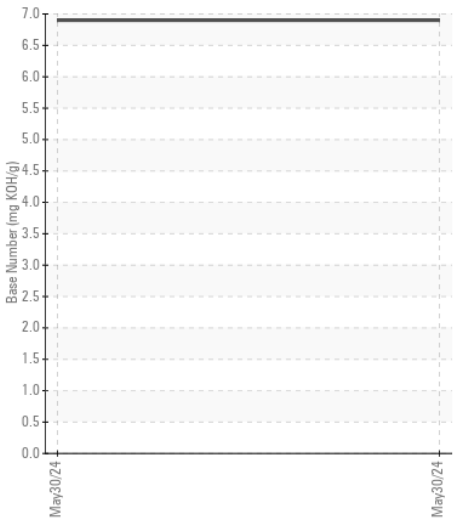
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ARI0007878
Lab Number : 06196255
Unique Number : 11058378
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

Received : 31 May 2024
Tested : 05 Jun 2024
Diagnosed : 05 Jun 2024 - Jonathan Hester

Certificate L2367

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)

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