



WEAR CHECK

OIL ANALYSIS REPORT

WEAR
CONTAMINATION
FLUID CONDITION

ATTENTION
NORMAL
NORMAL

Machine Id
181011
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0916533	WC0854040	WC0800698
Sample Date		Client Info		29 May 2024	29 Sep 2023	13 Apr 2023
Machine Age	mls	Client Info		0	257617	241011
Oil Age	mls	Client Info		10000	16409	0
Filter Age	mls	Client Info		10000	16409	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

An increase in the iron level is noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	74	29	23
Chromium	ppm	ASTM D5185m	>20	2	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	16	8	9
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	2	1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

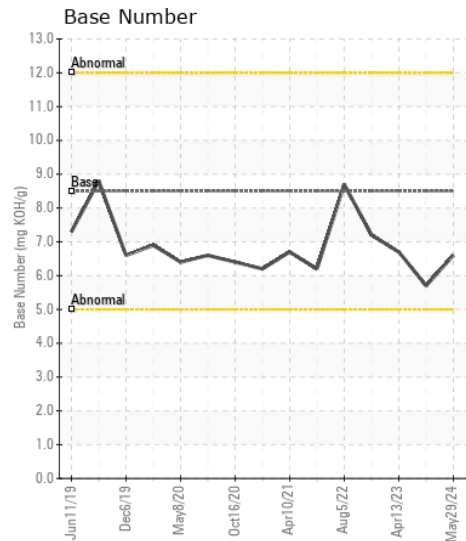
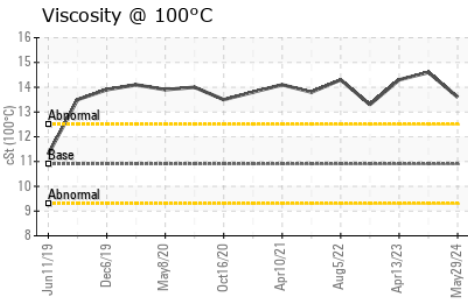
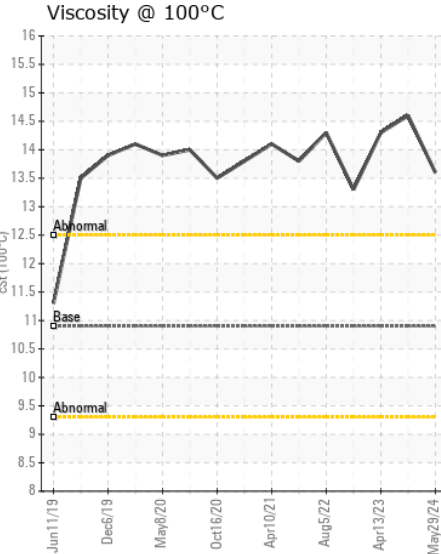
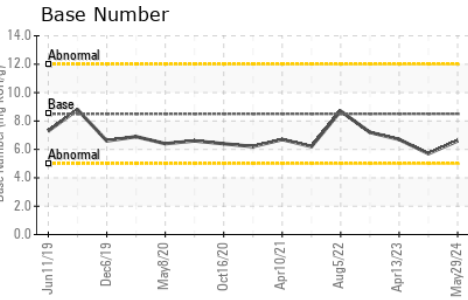
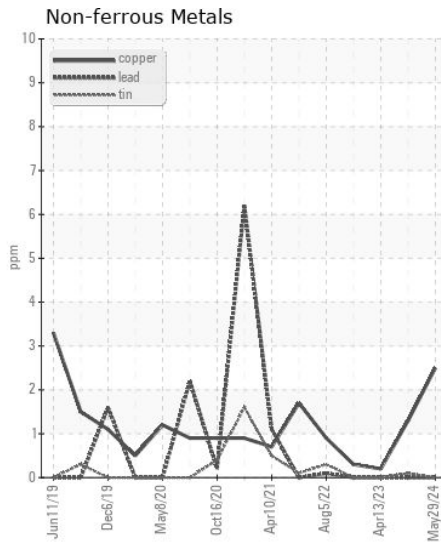
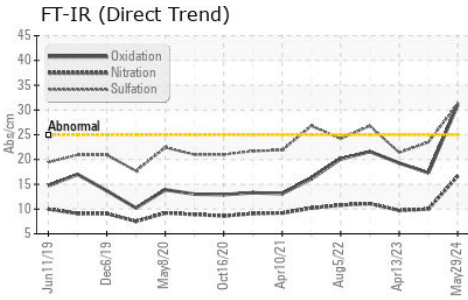
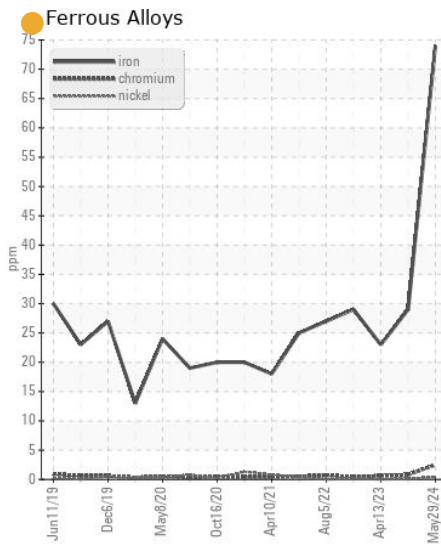
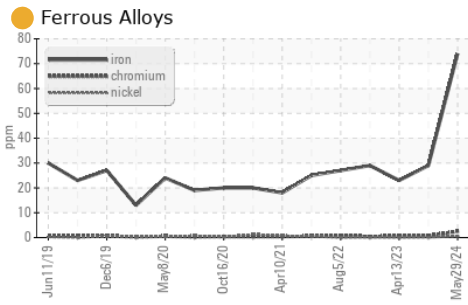
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	8	6	4
Potassium	ppm	ASTM D5185m	>20	6	4	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	2	1	0.9
Nitration	Abs/cm	*ASTM D7624	>20	16.6	10.0	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	31.2	23.5	21.4
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	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		3	1	<1
Boron	ppm	ASTM D5185m	250	1	14	81
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	67	19	60
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m	450	1096	130	384
Calcium	ppm	ASTM D5185m	3000	1489	2210	1779
Phosphorus	ppm	ASTM D5185m	1150	1182	890	914
Zinc	ppm	ASTM D5185m	1350	1518	1157	1211
Sulfur	ppm	ASTM D5185m	4250	3623	3309	3196
Oxidation	Abs/.1mm	*ASTM D7414	>25	31.0	17.3	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.6	5.7	6.7
Visc @ 100°C	cSt	ASTM D445	10.9	13.6	14.6	14.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0916533
Lab Number : 06211096
Unique Number : 11083960
Test Package : FLEET

Received : 14 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Angela Borella

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 LITTLE ROCK, AR
 US 72206
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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)