



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
1713
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

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		WC0810305	WC0860358	WC0844992
Sample Date		Client Info		04 Jan 2024	08 Nov 2023	05 Sep 2023
Machine Age	mls	Client Info		220209	214597	208957
Oil Age	mls	Client Info		6000	0	0
Filter Age	mls	Client Info		6000	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	11	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	0
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	3
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

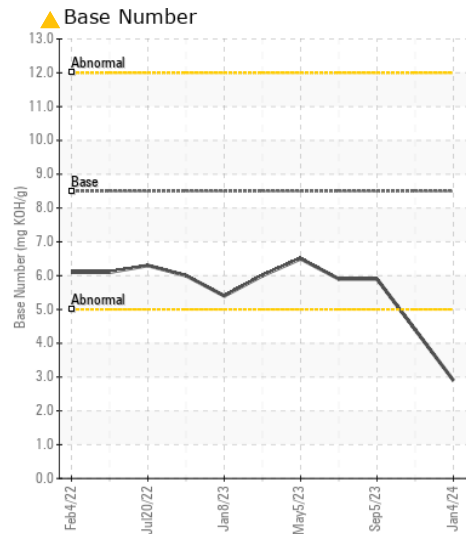
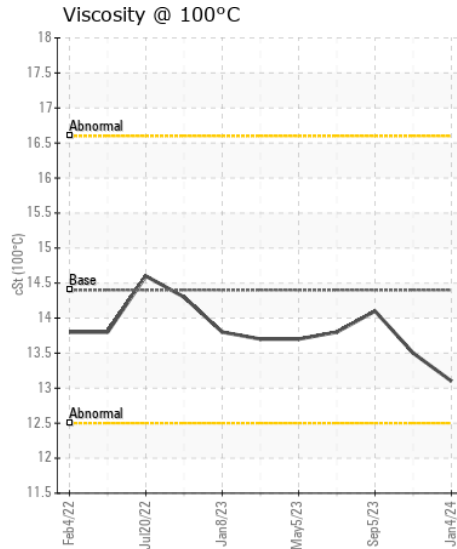
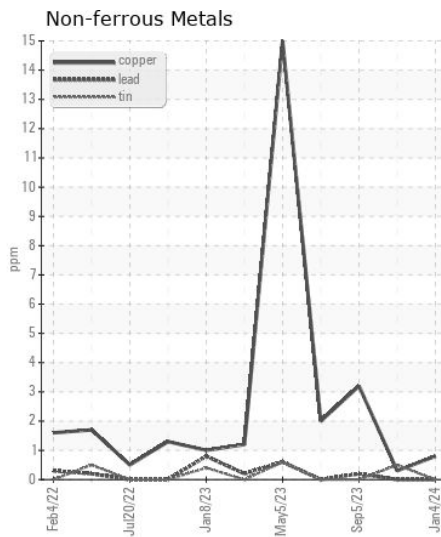
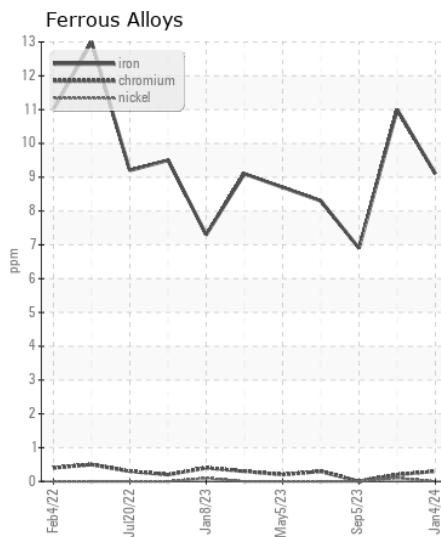
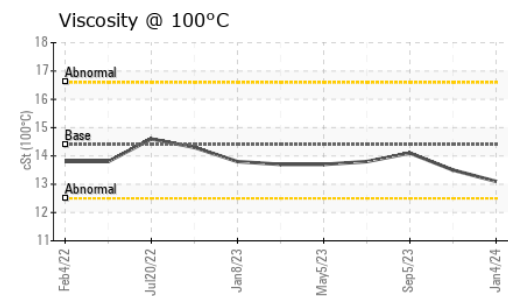
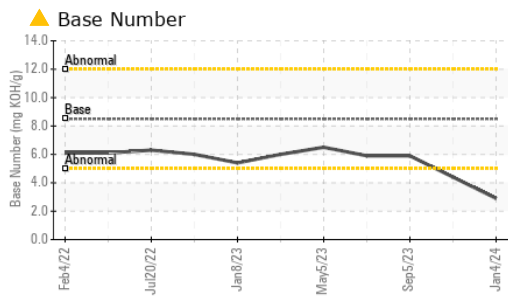
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	13	7
Potassium	ppm	ASTM D5185m	>20	2	1	1
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	0.3	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.1	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	23.5	22.0
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 level is low. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>158	2	4	7
Boron	ppm	ASTM D5185m	250	96	121	19
Barium	ppm	ASTM D5185m	10	3	0	0
Molybdenum	ppm	ASTM D5185m	100	79	76	77
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	450	224	324	261
Calcium	ppm	ASTM D5185m	3000	1595	1363	2019
Phosphorus	ppm	ASTM D5185m	1150	889	878	1059
Zinc	ppm	ASTM D5185m	1350	1147	1122	1352
Sulfur	ppm	ASTM D5185m	4250	3398	2838	3634
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	20.7	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 2.9	4.4	5.9
Visc @ 100°C	cSt	ASTM D445	14.4	13.1	13.5	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0810305 **Received** : 18 Jan 2024
Lab Number : 06064115 **Diagnosed** : 20 Jan 2024
Unique Number : 10835497 **Diagnostician** : Don Baldrige
Test Package : FLEET

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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)