



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area

Contracting

Machine Id

4287 4287

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0918738	WC0885905	---
Sample Date		Client Info		23 Apr 2024	01 Feb 2024	---
Machine Age	hrs	Client Info		277	0	---
Oil Age	hrs	Client Info		277	0	---
Filter Age	hrs	Client Info		277	0	---
Oil Changed		Client Info		Changed	Not Changd	---
Filter Changed		Client Info		Changed	Not Changd	---
Sample Status				ABNORMAL	ATTENTION	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	15	12	---
Chromium	ppm	ASTM D5185m	>20	2	<1	---
Nickel	ppm	ASTM D5185m	>4	1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	3	2	---
Lead	ppm	ASTM D5185m	>40	2	<1	---
Copper	ppm	ASTM D5185m	>330	61	28	---
Tin	ppm	ASTM D5185m	>15	2	<1	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

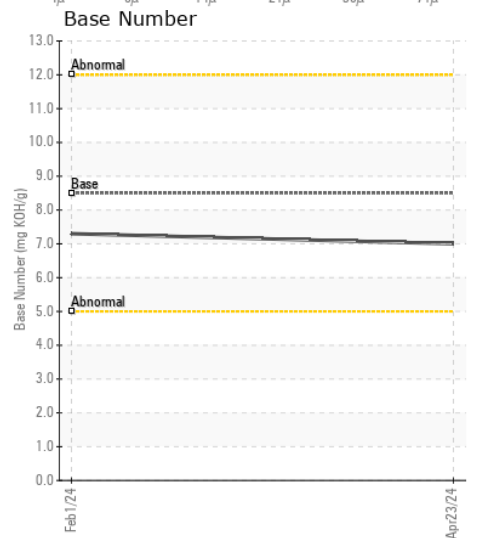
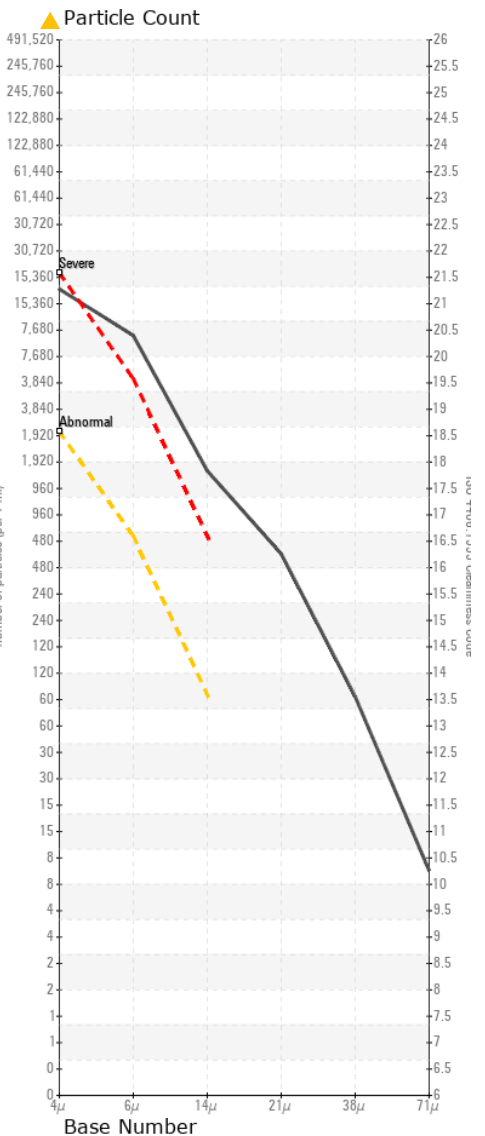
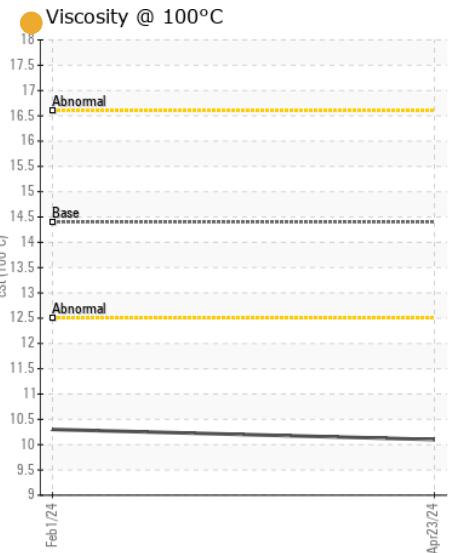
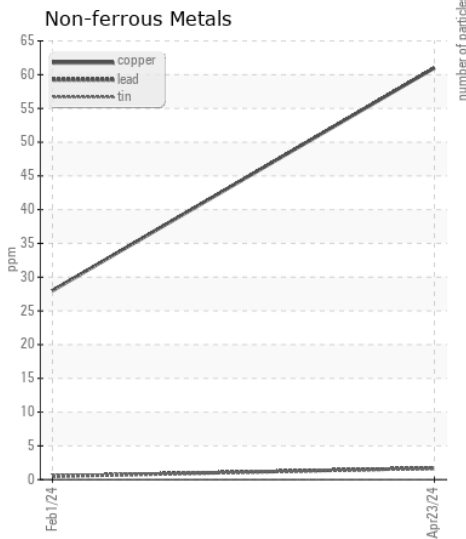
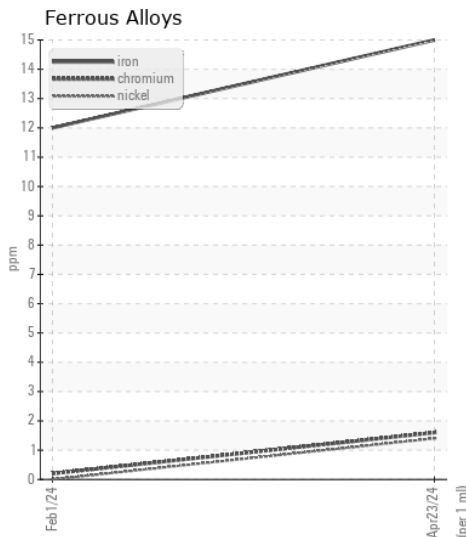
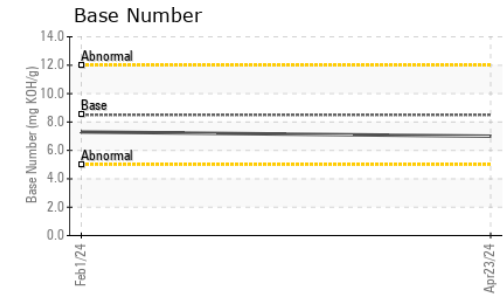
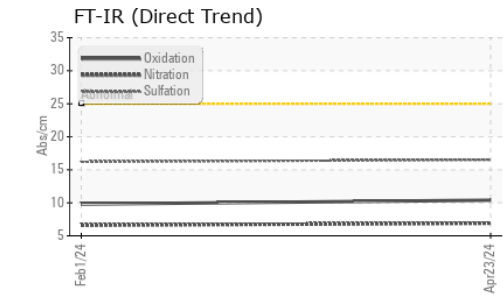
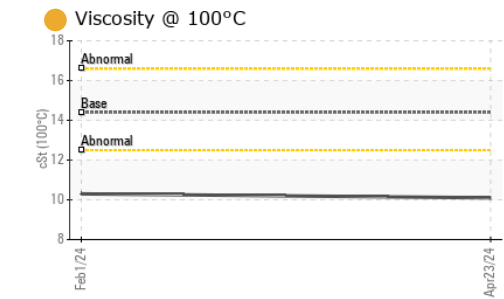
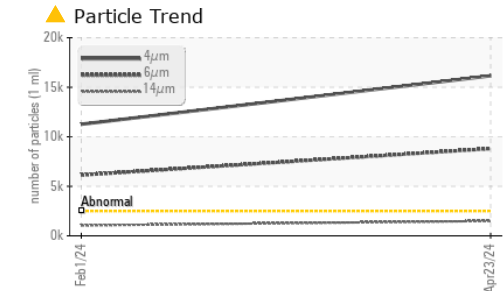
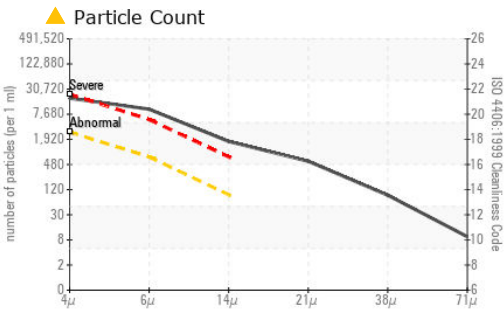
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	13	11	---
Potassium	ppm	ASTM D5185m	>20	4	2	---
Fuel		WC Method	>5	<1.0	2.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.1	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	6.9	6.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.5	16.2	---
Particles >4µm		ASTM D7647	>2500	▲ 16155	11266	---
Particles >6µm		ASTM D7647	>640	▲ 8801	6137	---
Particles >14µm		ASTM D7647	>80	▲ 1498	1044	---
Particles >21µm		ASTM D7647	>20	▲ 505	352	---
Particles >38µm		ASTM D7647	>4	▲ 78	54	---
Particles >71µm		ASTM D7647	>3	▲ 8	6	---
Oil Cleanliness		ISO 4406 (c)	>18/16/13	▲ 21/20/18	21/20/17	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---

FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	4	5	---
Boron	ppm	ASTM D5185m	250	2	2	---
Barium	ppm	ASTM D5185m	10	4	3	---
Molybdenum	ppm	ASTM D5185m	100	24	21	---
Manganese	ppm	ASTM D5185m		3	1	---
Magnesium	ppm	ASTM D5185m	450	34	36	---
Calcium	ppm	ASTM D5185m	3000	2521	2501	---
Phosphorus	ppm	ASTM D5185m	1150	786	890	---
Zinc	ppm	ASTM D5185m	1350	985	1037	---
Sulfur	ppm	ASTM D5185m	4250	4418	4335	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.4	9.8	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.0	7.3	---
Visc @ 100°C	cSt	ASTM D445	14.4	● 10.1	● 10.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0918738 **Received** : 25 Apr 2024
Lab Number : 06160223 **Tested** : 26 Apr 2024
Unique Number : 10995646 **Diagnosed** : 26 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PrtCount, TBN)

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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