



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
BELL B45E B93A645ET03308079
Component
Diesel Engine
Fluid
SYNERGY 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		BE0016864	BE0016863	---
Sample Date		Client Info		25 Feb 2024	04 Aug 2023	---
Machine Age	hrs	Client Info		943	478	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>79	19	14	---
Iron	ppm	ASTM D5185m	>100	40	74	---
Chromium	ppm	ASTM D5185m	>20	3	7	---
Nickel	ppm	ASTM D5185m	>4	0	2	---
Titanium	ppm	ASTM D5185m		<1	<1	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	12	30	---
Lead	ppm	ASTM D5185m	>40	0	0	---
Copper	ppm	ASTM D5185m	>330	265	219	---
Tin	ppm	ASTM D5185m	>15	<1	3	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

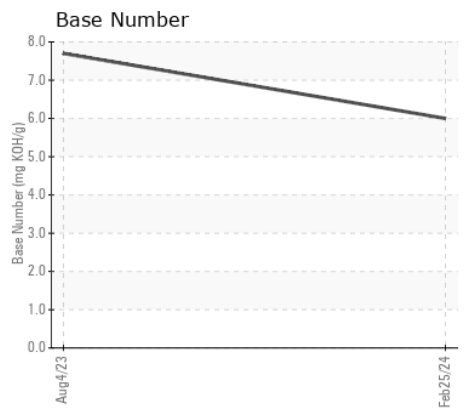
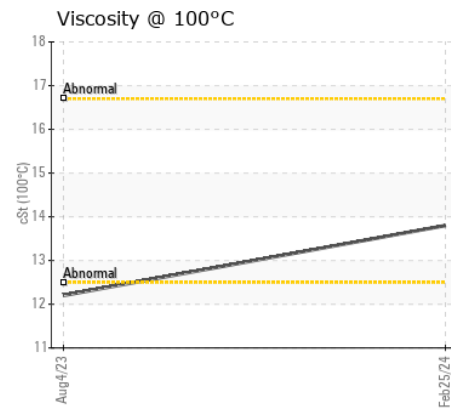
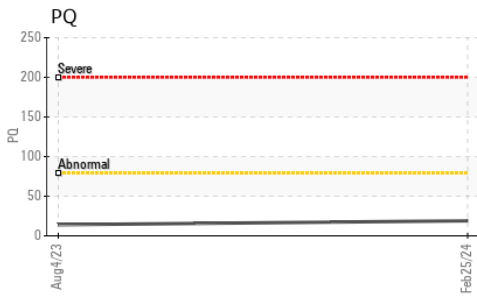
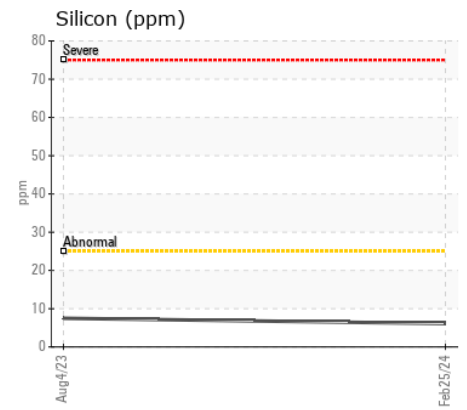
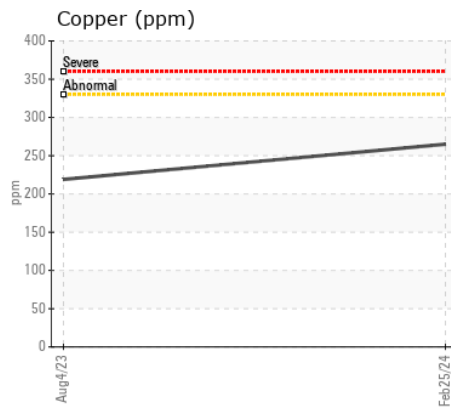
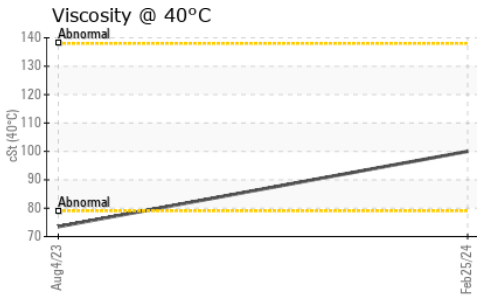
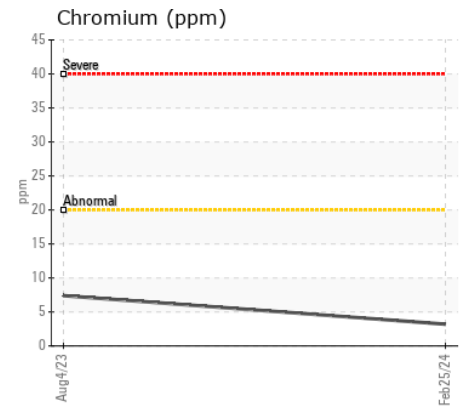
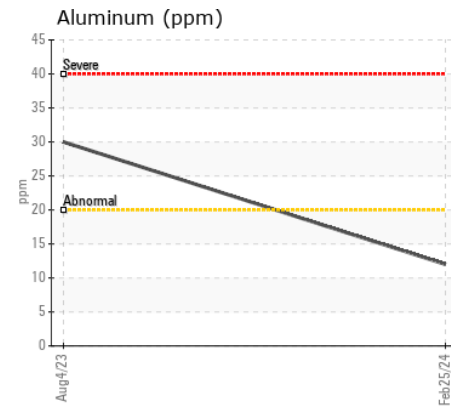
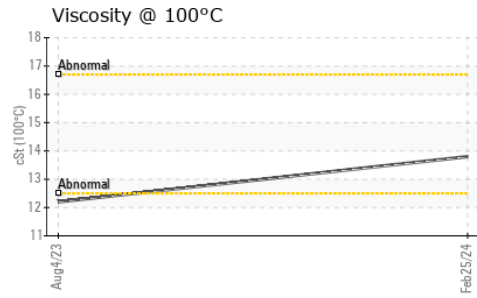
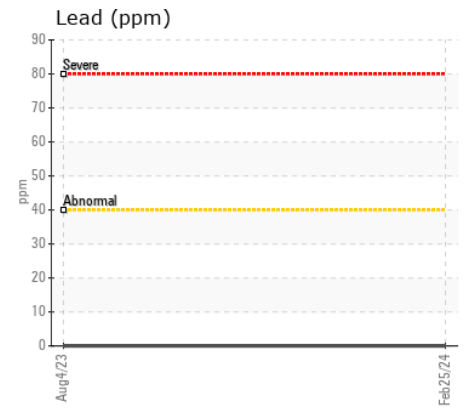
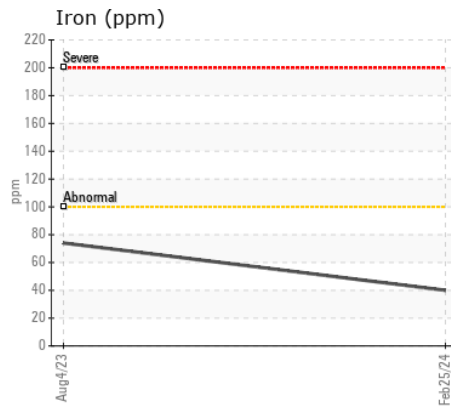
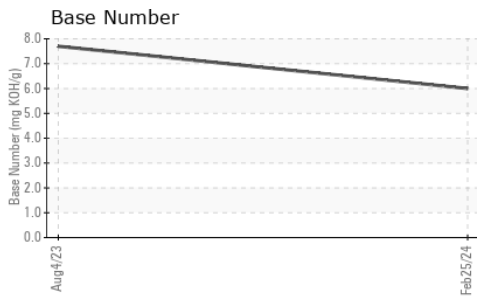
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	8	---
Potassium	ppm	ASTM D5185m	>20	6	6	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.7	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	10.0	11.4	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.7	22.8	---
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	3	---
Boron	ppm	ASTM D5185m		178	17	---
Barium	ppm	ASTM D5185m		9	0	---
Molybdenum	ppm	ASTM D5185m		77	<1	---
Manganese	ppm	ASTM D5185m		2	7	---
Magnesium	ppm	ASTM D5185m		362	91	---
Calcium	ppm	ASTM D5185m		1576	2450	---
Phosphorus	ppm	ASTM D5185m		897	679	---
Zinc	ppm	ASTM D5185m		1132	826	---
Sulfur	ppm	ASTM D5185m		2447	2304	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	20.2	---
Base Number (BN)	mg KOH/g	ASTM D2896		6.0	7.7	---
Visc @ 40°C	cSt	ASTM D445		100	73.5	---
Visc @ 100°C	cSt	ASTM D445		13.8	12.2	---
Viscosity Index (VI)	Scale	ASTM D2270		139	163	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : BE0016864

Lab Number : 06100032

Unique Number : 10898262

Test Package : MOBCE

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 27 Feb 2024 - Don Baldrige

Oak Hills

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Ewing, IL

US 62836

Contact: JOSH

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F:

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)