



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
BELL B45E B93A645EC03007780
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		BE0006598	BE0006614	BE0006604
Sample Date		Client Info		29 Jan 2024	02 Jun 2023	10 Mar 2023
Machine Age	hrs	Client Info		3760	2785	2269
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>79	14	7	---
Iron	ppm	ASTM D5185m	>100	9	14	28
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	4	8
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	10	30	49
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

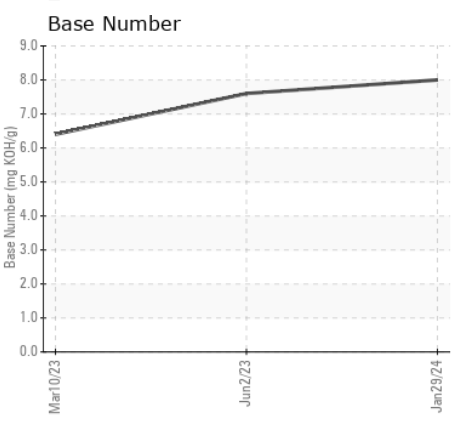
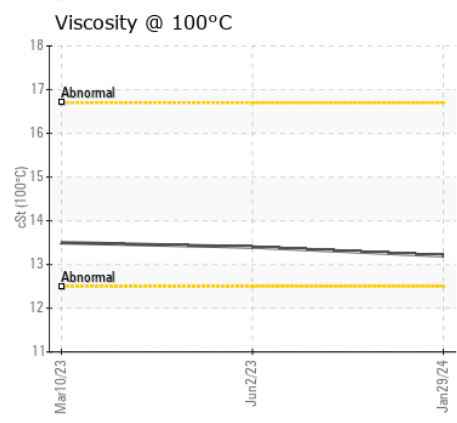
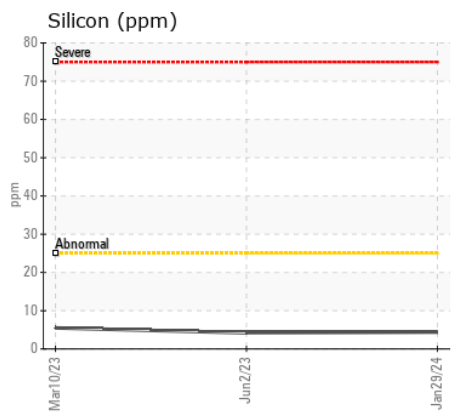
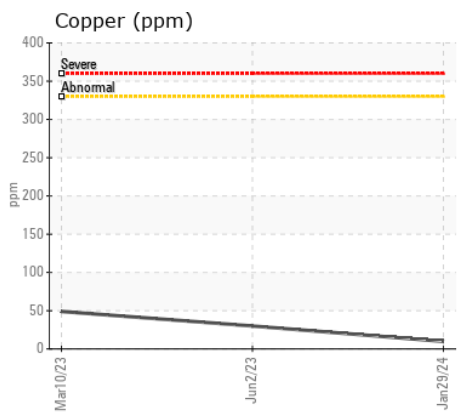
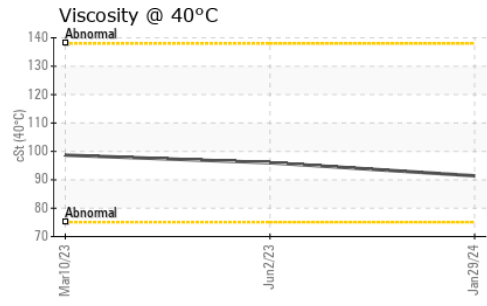
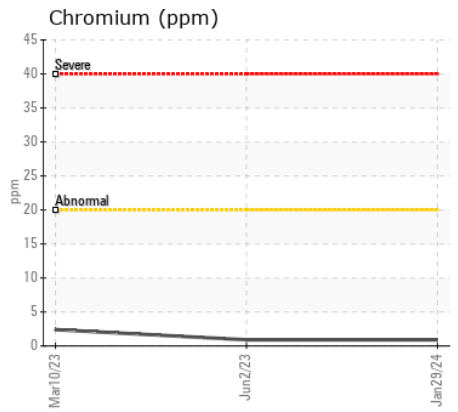
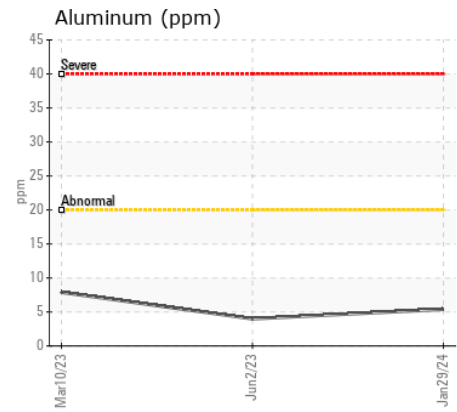
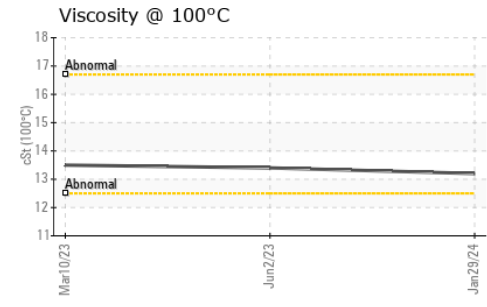
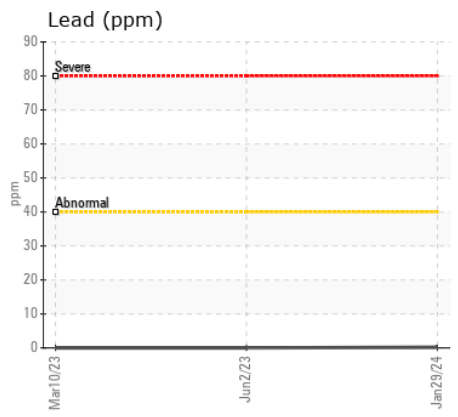
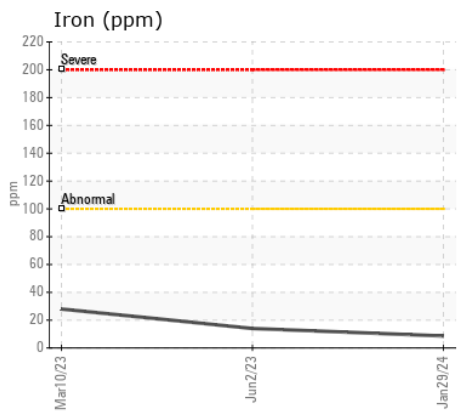
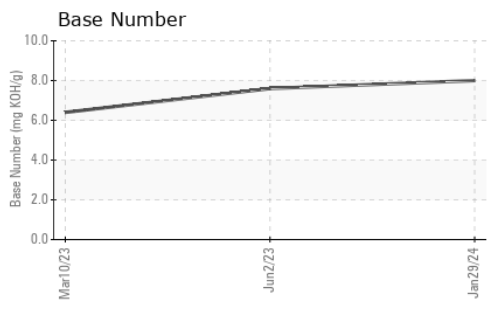
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	4	6
Potassium	ppm	ASTM D5185m	>20	7	2	7
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	0.5	0.7	1.1
Nitration	Abs/cm	*ASTM D7624	>20	7.7	8.3	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	21.0	22.3
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 suitable for further service.

Sodium	ppm	ASTM D5185m		2	<1	<1
Boron	ppm	ASTM D5185m		10	14	6
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		67	62	62
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		930	879	842
Calcium	ppm	ASTM D5185m		1133	1097	1115
Phosphorus	ppm	ASTM D5185m		1092	903	822
Zinc	ppm	ASTM D5185m		1248	1185	1109
Sulfur	ppm	ASTM D5185m		3491	2988	2468
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.9	15.9	18.5
Base Number (BN)	mg KOH/g	ASTM D2896		8.0	7.6	6.4
Visc @ 40°C	cSt	ASTM D445		91.4	96.00	98.7
Visc @ 100°C	cSt	ASTM D445		13.2	13.4	13.5
Viscosity Index (VI)	Scale	ASTM D2270		144	139	136



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : BE0006598
Lab Number : 06121524
Unique Number : 10930357
Test Package : MOBCE
Received : 18 Mar 2024
Tested : 21 Mar 2024
Diagnosed : 21 Mar 2024 - Jonathan Hester

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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)