



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION



Machine Id
BELL B50E B93A650EV03007848
 Component
Diesel Engine
 Fluid
SYNERGY 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		BE0010013	BE0010012	BE0010002
Sample Date		Client Info		01 Jul 2024	22 Jan 2024	31 May 2023
Machine Age	hrs	Client Info		2922	2456	1971
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				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184	>79	13	18	9
Iron	ppm	ASTM D5185m	>100	2	34	29
Chromium	ppm	ASTM D5185m	>20	0	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	6	6
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	1	27	30
Tin	ppm	ASTM D5185m	>15	0	1	2
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

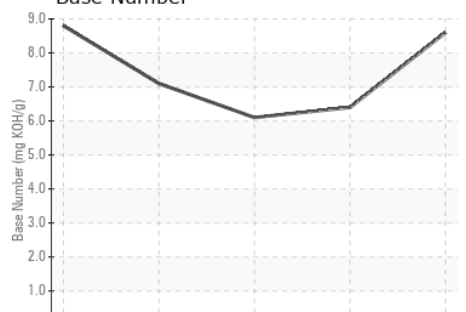
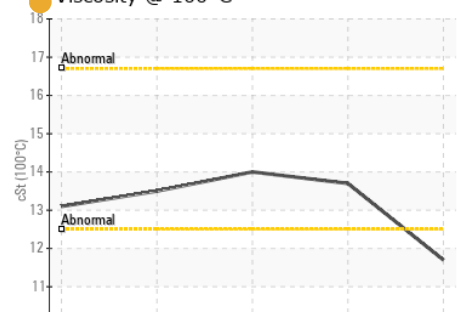
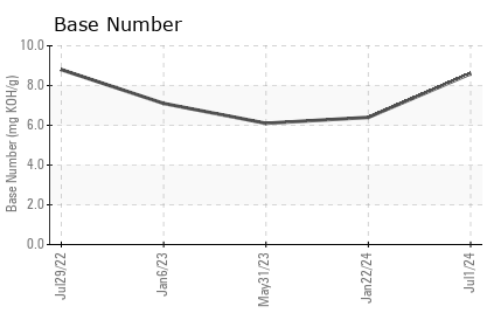
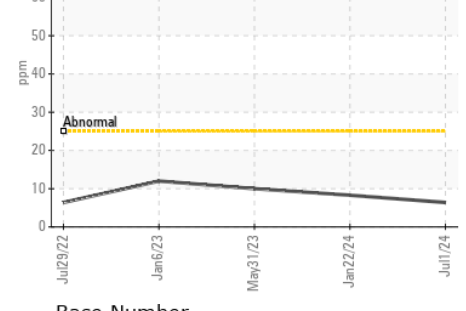
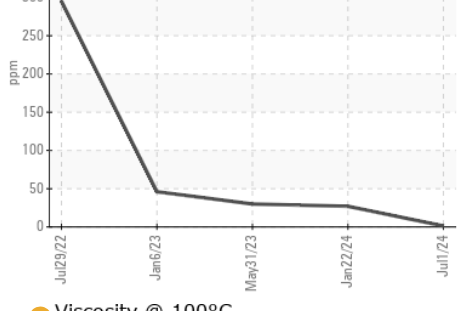
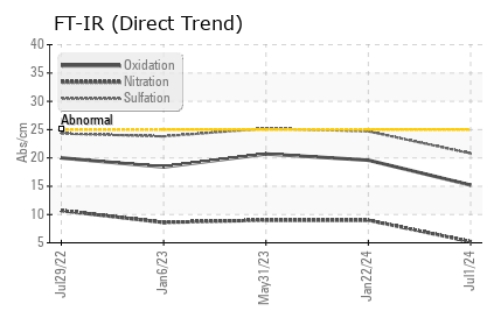
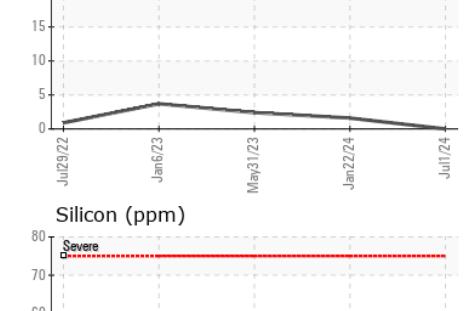
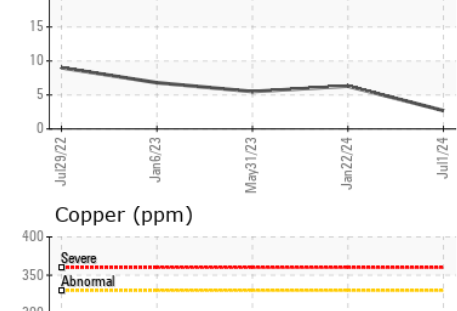
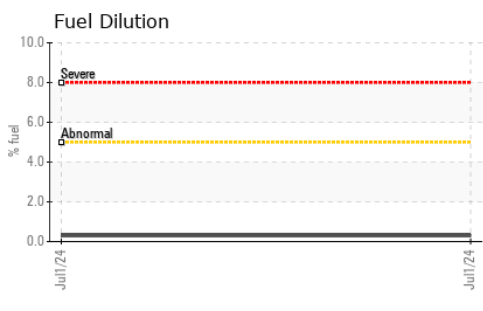
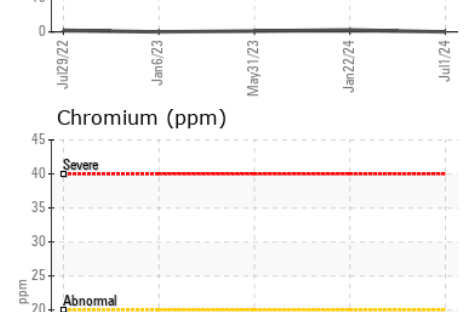
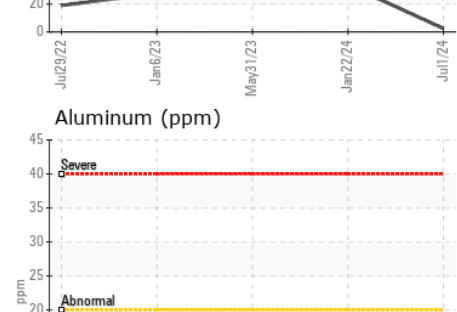
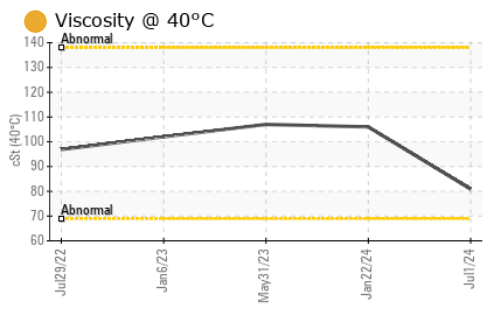
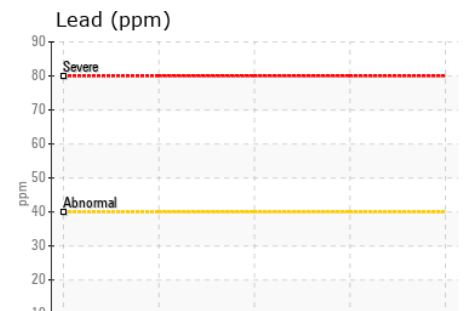
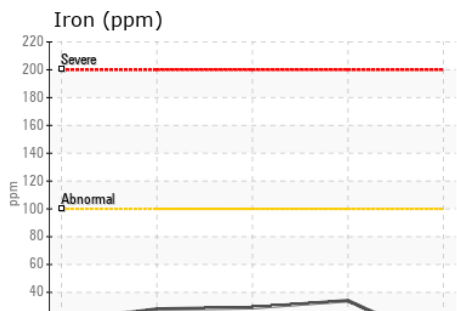
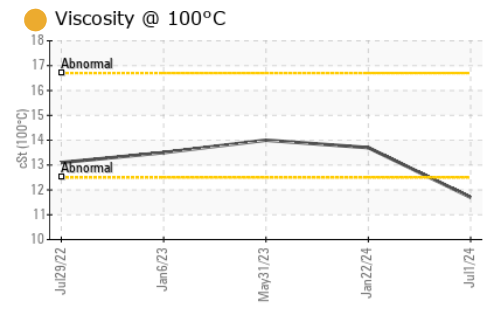
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	8	10
Potassium	ppm	ASTM D5185m	>20	2	4	4
Fuel	%	ASTM D3524	>5	0.3	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	5.2	9.0	9.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.8	24.7	25.2
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		0	2	1
Boron	ppm	ASTM D5185m		464	284	230
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		83	91	101
Manganese	ppm	ASTM D5185m		0	1	<1
Magnesium	ppm	ASTM D5185m		466	471	440
Calcium	ppm	ASTM D5185m		1438	1476	1523
Phosphorus	ppm	ASTM D5185m		1156	1065	1063
Zinc	ppm	ASTM D5185m		1399	1355	1382
Sulfur	ppm	ASTM D5185m		4242	2817	3029
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	19.6	20.7
Base Number (BN)	mg KOH/g	ASTM D2896		8.6	6.4	6.1
Visc @ 40°C	cSt	ASTM D445		80.9	106	107
Visc @ 100°C	cSt	ASTM D445		11.7	13.7	14.0
Viscosity Index (VI)	Scale	ASTM D2270		137	128	131



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : BE0010013 **Received** : 10 Jul 2024
Lab Number : 06232881 **Tested** : 16 Jul 2024
Unique Number : 11116374 **Diagnosed** : 16 Jul 2024 - Jonathan Hester
Test Package : MOBCE (Additional Tests: FuelDilution, PercentFuel)

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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)