MOB BELL

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
BELL B50E B93A650EH03007613
Component
Diesel Engine
Fluid
SHELL ROTELLA T 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

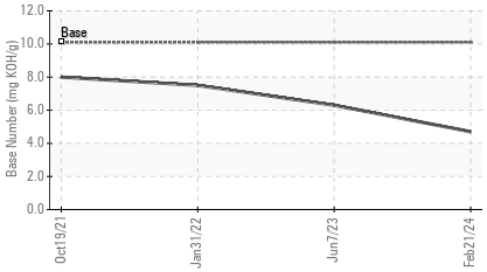
There is no indication of any contamination in the oil.

FLUID CONDITION

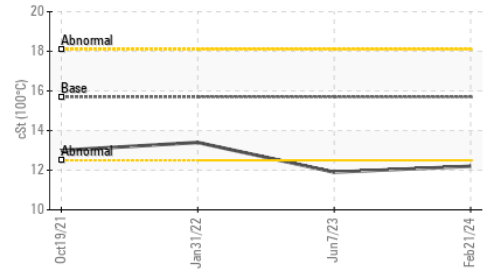
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		BE0003139	BE0003137	BE0003122
Sample Date		Client Info		21 Feb 2024	07 Jun 2023	31 Jan 2022
Machine Age	hrs	Client Info		3671	2821	924
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
PQ		ASTM D8184	>79	14	18	18
Iron	ppm	ASTM D5185m	>100	11	13	15
Chromium	ppm	ASTM D5185m	>20	1	1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	5	5
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	11	14	293
Tin	ppm	ASTM D5185m	>15	1	1	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	5	5	6
Potassium	ppm	ASTM D5185m	>20	5	7	3
Fuel	%	ASTM D3524	>5	<1.0	0.2	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.1	8.6	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.9	21.0	23.6
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
Sodium	ppm	ASTM D5185m		<1	2	2
Boron	ppm	ASTM D5185m	316	57	76	187
Barium	ppm	ASTM D5185m	0.0	1	0	0
Molybdenum	ppm	ASTM D5185m	1.2	19	13	77
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	24	137	741	425
Calcium	ppm	ASTM D5185m	2292	1364	1333	1668
Phosphorus	ppm	ASTM D5185m	1064	716	761	914
Zinc	ppm	ASTM D5185m	1160	878	924	1040
Sulfur	ppm	ASTM D5185m	4996	2930	3304	2258
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.9	17.9	19.0
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	4.7	6.3	7.5
Visc @ 40°C	cSt	ASTM D445	120.	91.5	75.2	97.3
Visc @ 100°C	cSt	ASTM D445	15.7	12.2	11.9	13.4
Viscosity Index (VI)	Scale	ASTM D2270	139	126	153	137

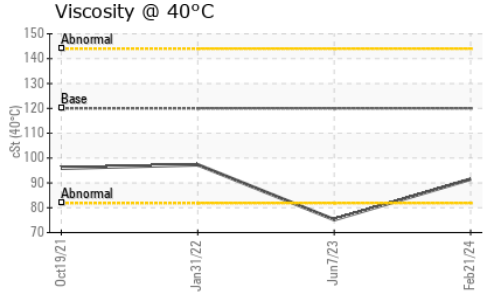
Base Number



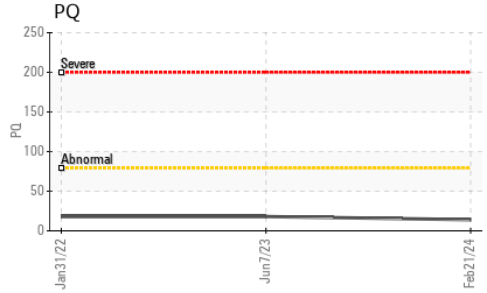
Viscosity @ 100°C



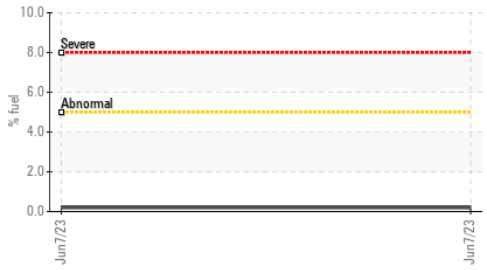
Viscosity @ 40°C



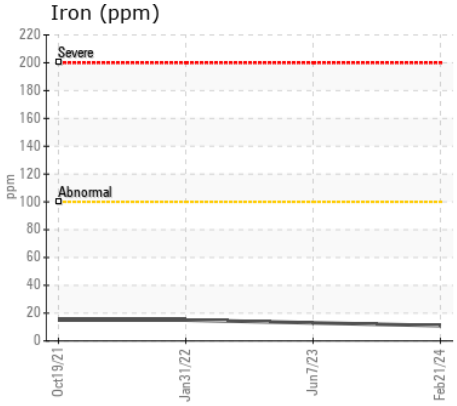
PQ



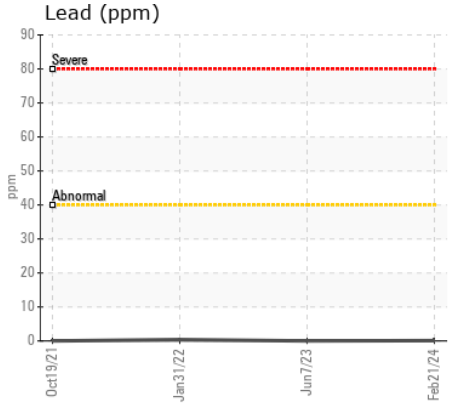
Fuel Dilution



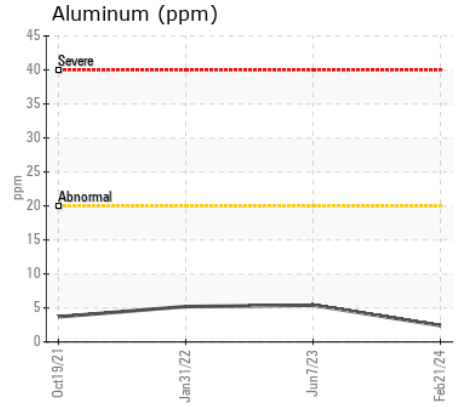
Iron (ppm)



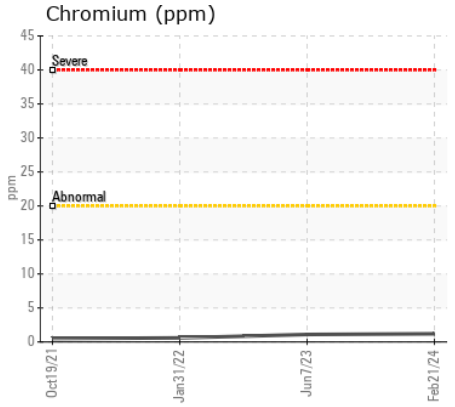
Lead (ppm)



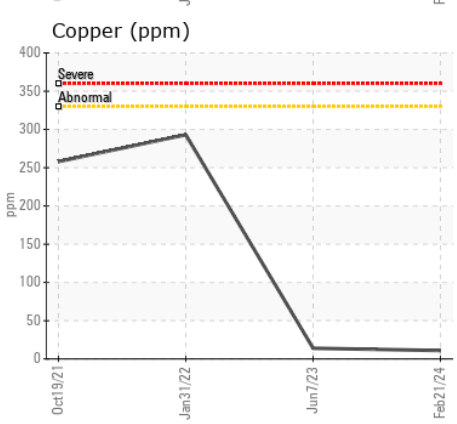
Aluminum (ppm)



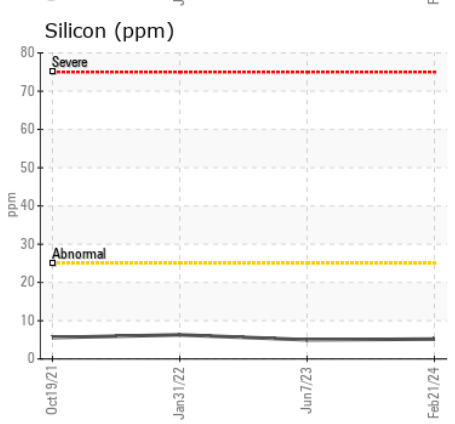
Chromium (ppm)



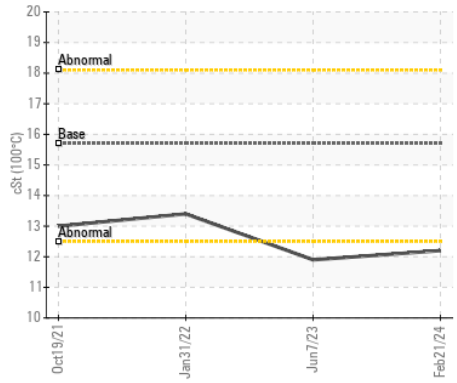
Copper (ppm)



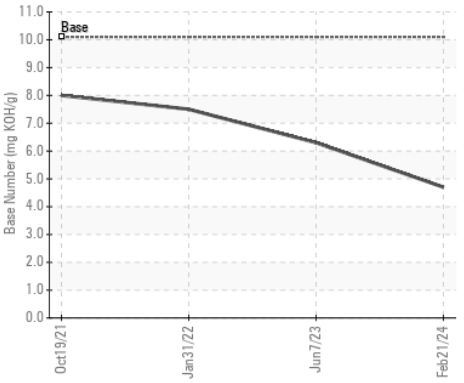
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : BE0003139 **Received** : 27 Feb 2024
Lab Number : 06101495 **Tested** : 29 Feb 2024
Unique Number : 10899725 **Diagnosed** : 29 Feb 2024 - Jonathan Hester
Test Package : MOBCE (Additional Tests: FuelDilution)

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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