



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
{UNASSIGNED}
Machine Id
INTERANTIONAL 441427
Component
Diesel Engine
Fluid
MOBIL 15W40 (32 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0030568	IL0030445	IL0026554
Sample Date		Client Info		27 Dec 2023	24 Jul 2023	20 Apr 2023
Machine Age	mls	Client Info		69127	36863	17510
Oil Age	mls	Client Info		69127	36863	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>90	39	22	29
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	0	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	15	15	13
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	5	2	16
Tin	ppm	ASTM D5185m	>15	1	1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

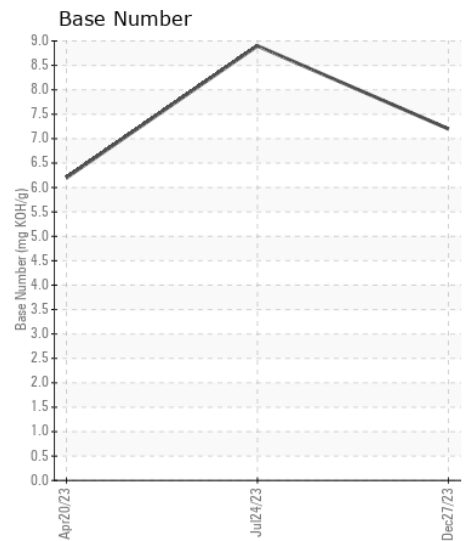
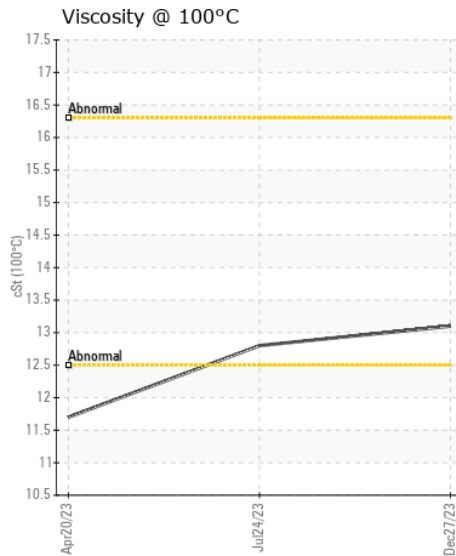
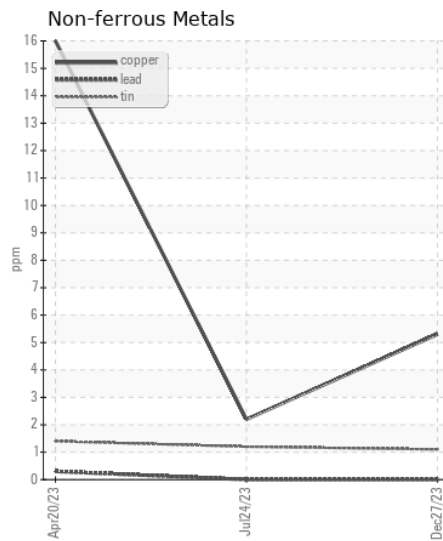
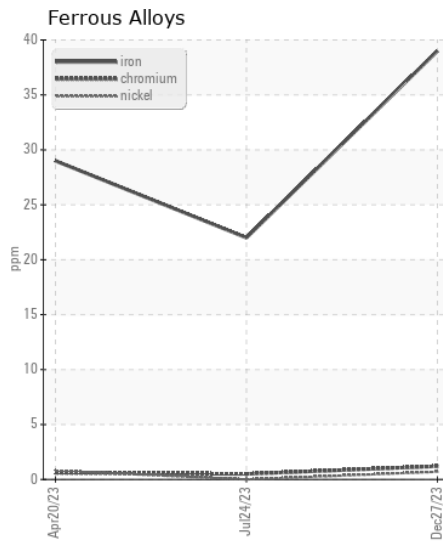
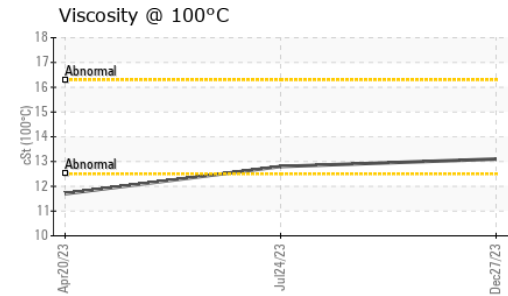
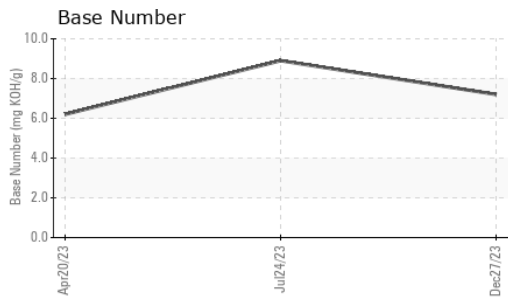
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	9	10	21
Potassium	ppm	ASTM D5185m	>20	33	30	40
Fuel		WC Method	>3.0	<1.0	<1.0	1.1
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.7	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	11.4	9.2	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	20.3	19.6
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

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	>118	3	<1	4
Boron	ppm	ASTM D5185m		2	6	25
Barium	ppm	ASTM D5185m		<1	0	<1
Molybdenum	ppm	ASTM D5185m		66	72	50
Manganese	ppm	ASTM D5185m		<1	1	5
Magnesium	ppm	ASTM D5185m		1071	1130	765
Calcium	ppm	ASTM D5185m		1141	1259	1226
Phosphorus	ppm	ASTM D5185m		1098	1165	684
Zinc	ppm	ASTM D5185m		1345	1451	892
Sulfur	ppm	ASTM D5185m		3150	4454	2234
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.4	16.5	19.4
Base Number (BN)	mg KOH/g	ASTM D2896		7.2	8.9	6.2
Visc @ 100°C	cSt	ASTM D445		13.1	12.8	▲ 11.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0030568 **Received** : 18 Jan 2024
Lab Number : 06064838 **Diagnosed** : 19 Jan 2024
Unique Number : 10836220 **Diagnostician** : Wes Davis
Test Package : FLEET

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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)