MOB I

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
52000 series
Machine Id
Navistar 52819
Component
Diesel Engine
Fluid
SHELL ROTELLA T5 10W30 (CJ4) (40 LTR)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as SHELL ROTELLA T5 10W30 (CJ4), however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

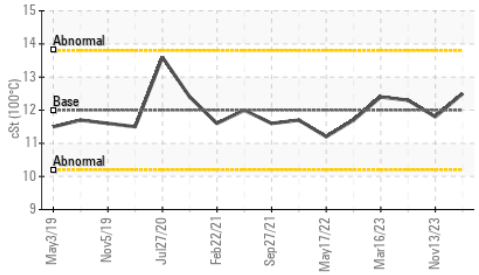
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

FLUID CONDITION

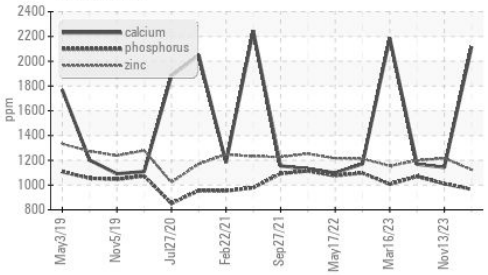
Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0892070**	WC0863965	WC0828203
Sample Date		Client Info		**24 Feb 2024**	13 Nov 2023	01 Jul 2023
Machine Age	kms	Client Info		**423082**	400610	372266
Oil Age	kms	Client Info		**22308**	0	20373
Filter Age	kms	Client Info		**22308**	0	20373
Oil Changed		Client Info		**Changed**	Changed	Changed
Filter Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>100	**24**	35	29
Chromium	ppm	ASTM D5185(m)	>20	**1**	1	2
Nickel	ppm	ASTM D5185(m)	>4	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)	>3	**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>20	**4**	4	3
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>330	**1**	2	1
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Silicon	ppm	ASTM D5185(m)	>25	**9**	7	10
Potassium	ppm	ASTM D5185(m)	>20	**8**	2	2
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	**1.3**	1.8	2.3
Nitration	Abs/cm	ASTM D7624*	>20	**10.2**	11.3	11.7
Sulfation	Abs/.1mm	ASTM D7415*	>30	**26.0**	24.1	25.3
Emulsified Water	scalar	Visual*	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185(m)		**4**	3	3
Boron	ppm	ASTM D5185(m)		**41**	5	7
Barium	ppm	ASTM D5185(m)	0	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)		**7**	62	58
Manganese	ppm	ASTM D5185(m)		**0**	0	<1
Magnesium	ppm	ASTM D5185(m)		**111**	965	916
Calcium	ppm	ASTM D5185(m)		**2116**	1143	1168
Phosphorus	ppm	ASTM D5185(m)		**965**	1011	1070
Zinc	ppm	ASTM D5185(m)		**1123**	1217	1198
Sulfur	ppm	ASTM D5185(m)		**2986**	2485	2543
Oxidation	Abs/.1mm	ASTM D7414*	>25	**19.1**	17.9	18.0
Visc @ 100°C	cSt	ASTM D7279(m)	12.0	**12.5**	11.8	12.3

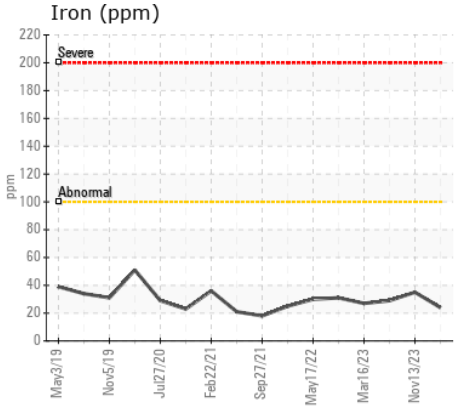
Viscosity @ 100°C



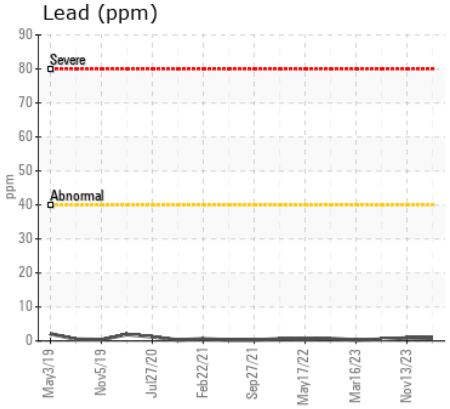
Additives



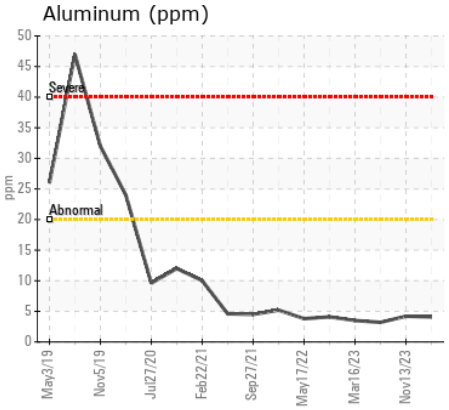
Iron (ppm)



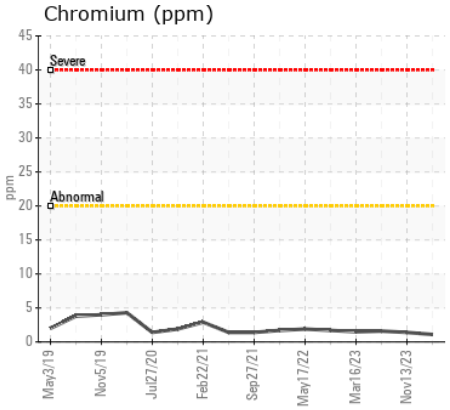
Lead (ppm)



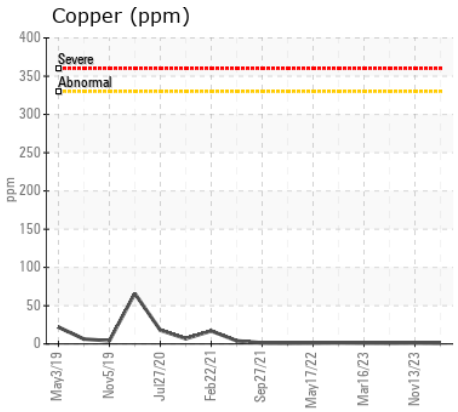
Aluminum (ppm)



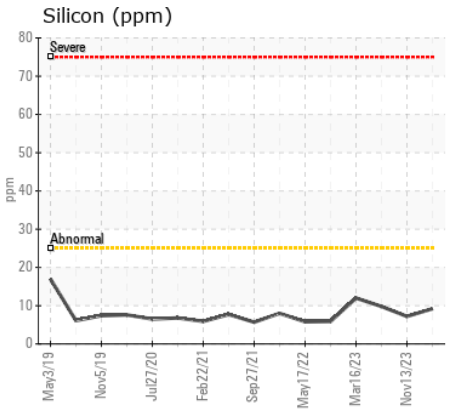
Chromium (ppm)



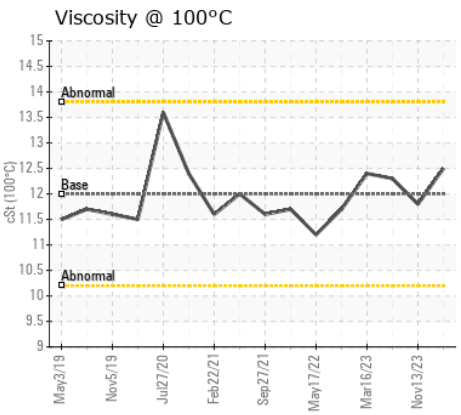
Copper (ppm)



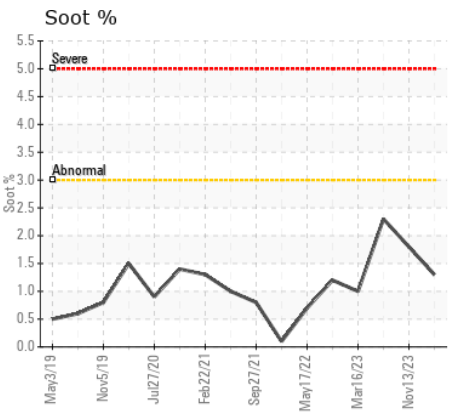
Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0892070
Lab Number : 02618863
Unique Number : 5735973
Test Package : MOB 1

Received : 29 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 29 Feb 2024 - Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

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