CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR D6K2 LGPAC 002098 (S/N OJTR01139)
Component
Diesel Engine
Fluid
CASTROL VECTON 15W40 CK4 (3 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

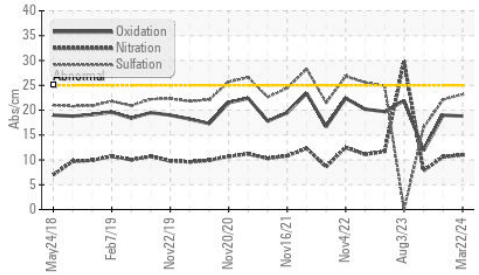
There is no indication of any contamination in the oil.

FLUID CONDITION

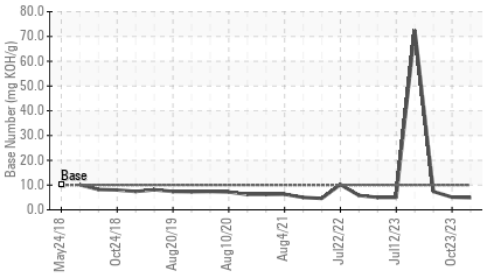
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0856309	WC0823944	WC0823831
Sample Date		Client Info		22 Mar 2024	23 Oct 2023	14 Aug 2023
Machine Age	hrs	Client Info		10200	9661	9163
Oil Age	hrs	Client Info		539	429	40
Filter Age	hrs	Client Info		539	429	40
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	29	34	10
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	8	11	3
Lead	ppm	ASTM D5185m	>40	2	0	<1
Copper	ppm	ASTM D5185m	>330	11	43	41
Tin	ppm	ASTM D5185m	>15	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	9	18	8
Potassium	ppm	ASTM D5185m	>20	5	13	▲ 54
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	0.7	0.7	0.1
Nitration	Abs/cm	*ASTM D7624	>20	11.0	10.6	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.2	22.1	16.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
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		17	66	▲ 304
Boron	ppm	ASTM D5185m		18	14	28
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		83	85	117
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		74	75	87
Calcium	ppm	ASTM D5185m		2139	1972	2068
Phosphorus	ppm	ASTM D5185m		989	883	975
Zinc	ppm	ASTM D5185m		1106	1112	1169
Sulfur	ppm	ASTM D5185m		3479	2796	4263
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	19.0	11.9
Base Number (BN)	mg KOH/g	ASTM D2896	10	4.9	5.1	7.4
Visc @ 100°C	cSt	ASTM D445	15.5	13.8	13.8	13.6

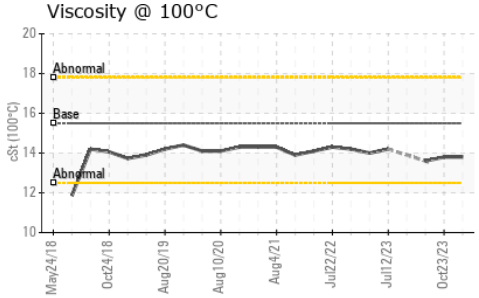
FT-IR (Direct Trend)



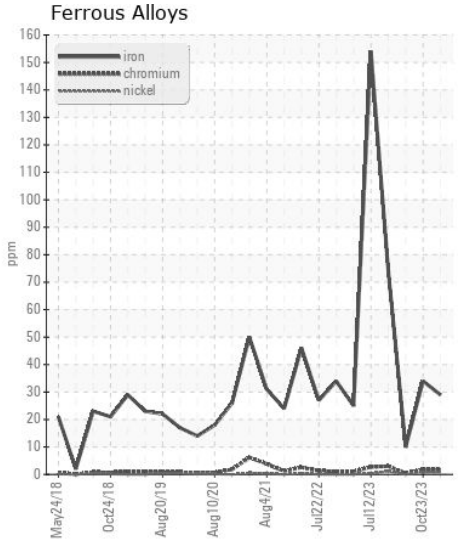
Base Number



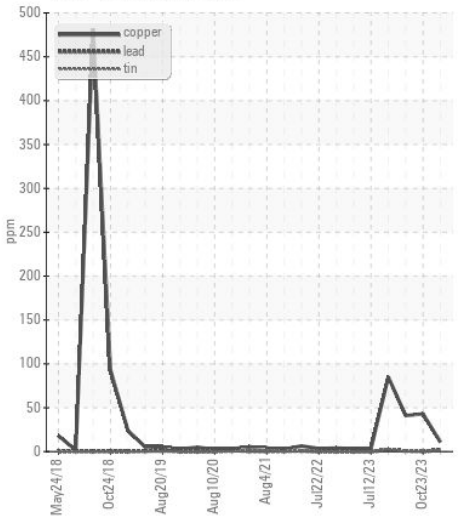
Viscosity @ 100°C



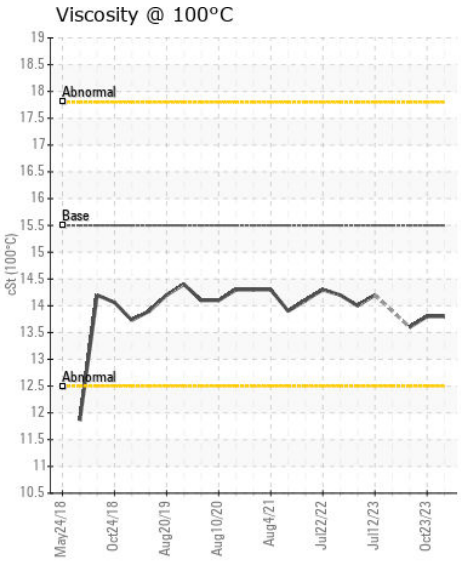
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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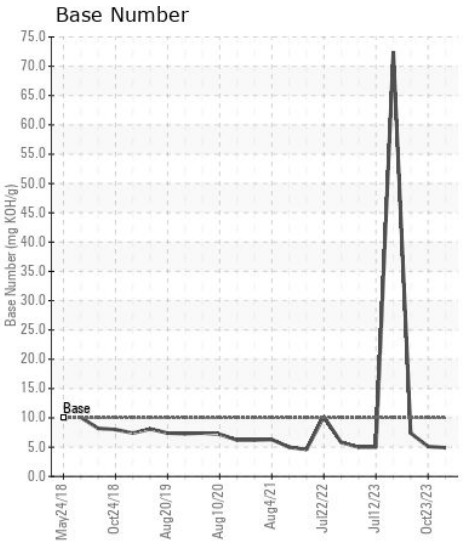

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856309 **Received** : 12 Apr 2024
Lab Number : 06147950 **Tested** : 15 Apr 2024
Unique Number : 10978028 **Diagnosed** : 15 Apr 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

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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