



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR D5KLGP 001724 (S/N YYY01518)
Component
Diesel Engine
Fluid
CASTROL VECTON 15W40 CK4 (2 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0856298	WC0823899	WC0758030
Sample Date		Client Info		25 Mar 2024	14 Sep 2023	03 Apr 2023
Machine Age	hrs	Client Info		9959	9477	8973
Oil Age	hrs	Client Info		482	504	500
Filter Age	hrs	Client Info		482	504	500
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	30	86	95
Chromium	ppm	ASTM D5185m	>20	1	2	2
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	15	11
Lead	ppm	ASTM D5185m	>40	2	3	<1
Copper	ppm	ASTM D5185m	>330	14	12	7
Tin	ppm	ASTM D5185m	>15	2	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

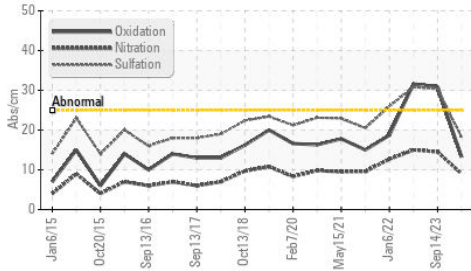
Silicon	ppm	ASTM D5185m	>25	14	14	13
Potassium	ppm	ASTM D5185m	>20	17	2	<1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	1.2	1.2
Nitration	Abs/cm	*ASTM D7624	>20	9.0	14.5	15.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.2	30.4	30.8
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

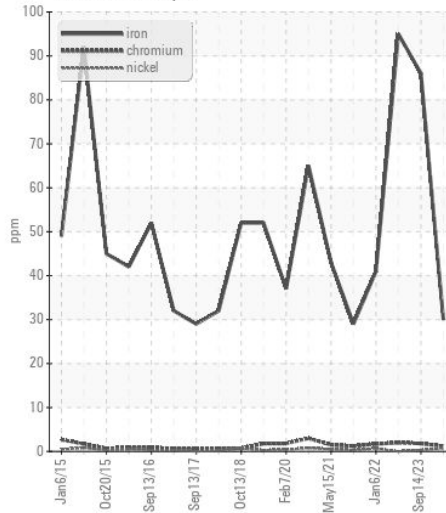
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		13	3	3
Boron	ppm	ASTM D5185m		84	61	73
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		76	98	103
Manganese	ppm	ASTM D5185m		4	<1	1
Magnesium	ppm	ASTM D5185m		87	136	122
Calcium	ppm	ASTM D5185m		2322	2338	2522
Phosphorus	ppm	ASTM D5185m		1033	1069	1182
Zinc	ppm	ASTM D5185m		1077	1335	1542
Sulfur	ppm	ASTM D5185m		3602	3602	4203
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.2	30.9	31.6
Base Number (BN)	mg KOH/g	ASTM D2896	10	6.9	6.3	5.9
Visc @ 100°C	cSt	ASTM D445	15.5	12.9	15.0	15.4

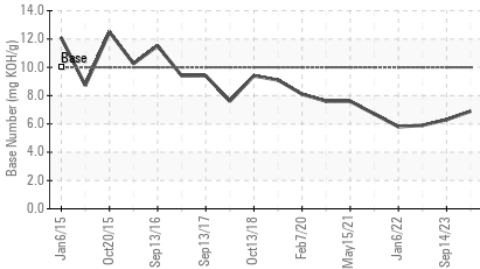
FT-IR (Direct Trend)



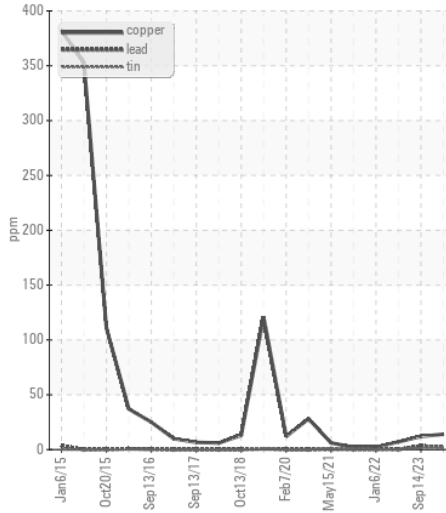
Ferrous Alloys



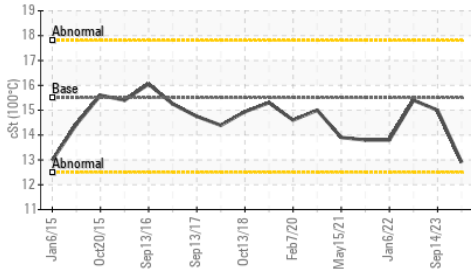
Base Number



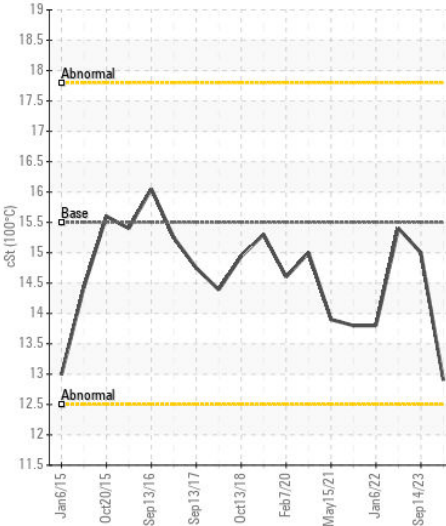
Non-ferrous Metals



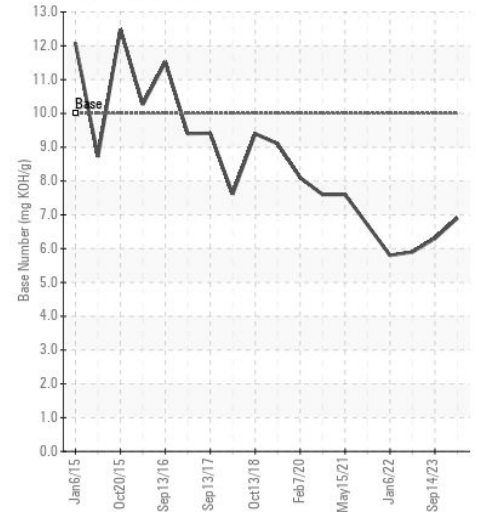
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0856298 **Received** : 12 Apr 2024
Lab Number : 06147947 **Tested** : 15 Apr 2024
Unique Number : 10978025 **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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