



# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**CATERPILLAR IT24F 000720 (S/N 4NN00234)**  
 Component  
**Diesel Engine**  
 Fluid  
**CASTROL VECTON 15W40 CK4 (5 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0800492</b>	WC0664777	WC0463726
Sample Date		Client Info		<b>13 Dec 2023</b>	01 Jun 2022	17 Jun 2020
Machine Age	hrs	Client Info		<b>24188</b>	21814	21014
Oil Age	hrs	Client Info		<b>700</b>	800	500
Filter Age	hrs	Client Info		<b>700</b>	800	500
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>29</b>	25	28
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	4	2
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>6</b>	6	4
Lead	ppm	ASTM D5185m	>40	<b>1</b>	1	<1
Copper	ppm	ASTM D5185m	>330	<b>14</b>	6	10
Tin	ppm	ASTM D5185m	>15	<b>2</b>	1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

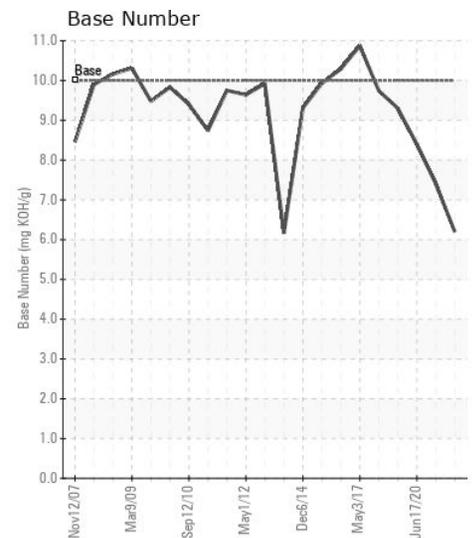
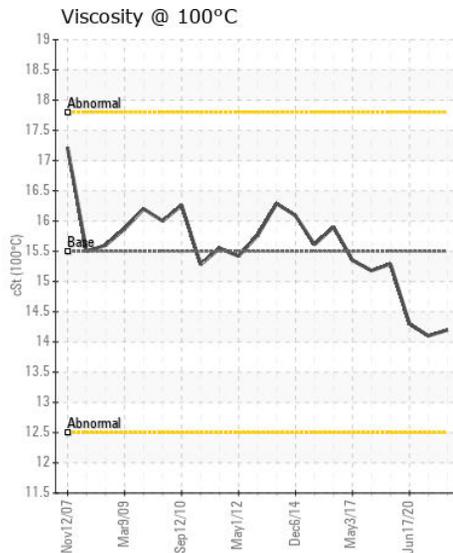
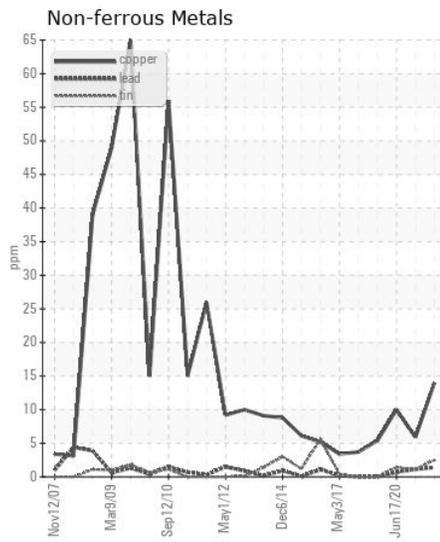
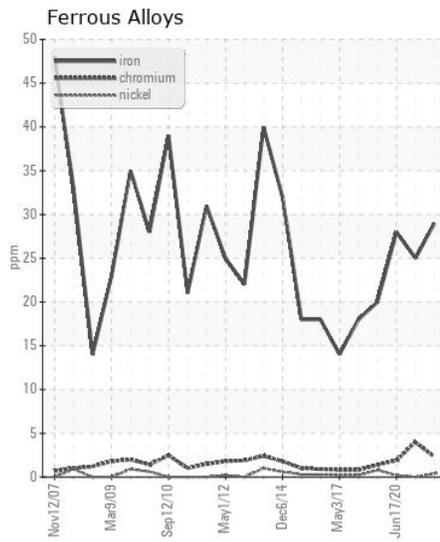
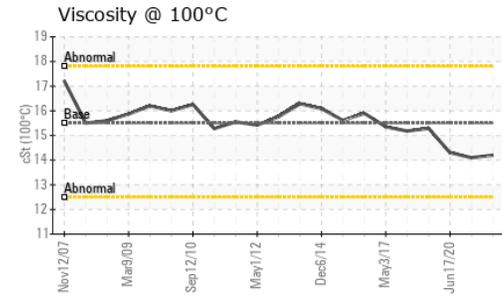
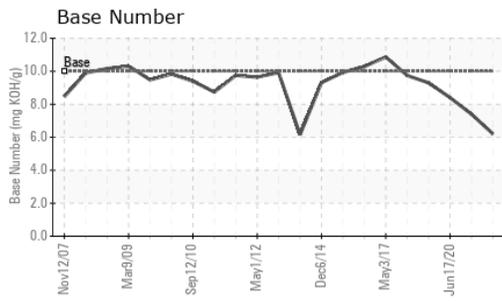
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	7	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	<1	1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>2</b>	1.3	1.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.2</b>	9.2	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.6</b>	21.6	24.5
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>3</b>	2	5
Boron	ppm	ASTM D5185m		<b>49</b>	94	59
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>83</b>	69	59
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>119</b>	339	900
Calcium	ppm	ASTM D5185m		<b>1999</b>	1853	1348
Phosphorus	ppm	ASTM D5185m		<b>1077</b>	1012	1043
Zinc	ppm	ASTM D5185m		<b>1244</b>	1209	1116
Sulfur	ppm	ASTM D5185m		<b>3449</b>	3446	2790
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.4</b>	15.7	18.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>6.2</b>	7.4	8.4
Visc @ 100°C	cSt	ASTM D445	15.5	<b>14.2</b>	14.1	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0800492 **Received** : 12 Jan 2024  
**Lab Number** : 06060092 **Diagnosed** : 16 Jan 2024  
**Unique Number** : 10831474 **Diagnostician** : 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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