

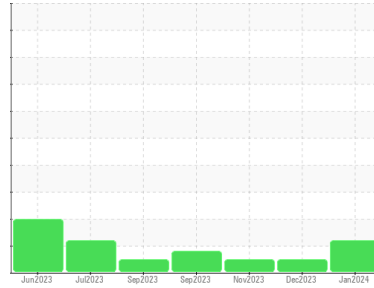


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR 374 10555 (S/N TNX10032)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

Sample Rating Trend



FUEL



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

Light fuel dilution occurring.

▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0888221	WC0879336	WC0862981
Sample Date	Client Info		30 Jan 2024	21 Dec 2023	07 Nov 2023
Machine Age	hrs	Client Info	3903	3227	2717
Oil Age	hrs	Client Info	670	510	554
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			ATTENTION	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	17	14	13
Chromium	ppm	ASTM D5185m >6	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m >2	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >30	5	5	10
Lead	ppm	ASTM D5185m >10	1	<1	2
Copper	ppm	ASTM D5185m >150	3	3	7
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 1	6	2	6
Barium	ppm	ASTM D5185m 1	<1	0	0
Molybdenum	ppm	ASTM D5185m 60	59	59	58
Manganese	ppm	ASTM D5185m 1	<1	0	<1
Magnesium	ppm	ASTM D5185m 1010	894	922	955
Calcium	ppm	ASTM D5185m 1070	1090	1135	1051
Phosphorus	ppm	ASTM D5185m 1150	997	947	1053
Zinc	ppm	ASTM D5185m 1270	1209	1220	1269
Sulfur	ppm	ASTM D5185m 2060	2838	3201	3025

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	4	4	6
Sodium	ppm	ASTM D5185m	<1	0	0
Potassium	ppm	ASTM D5185m >20	4	8	13
Fuel	%	ASTM D3524 >5	▲ 2.5	<1.0	<1.0

INFRA-RED

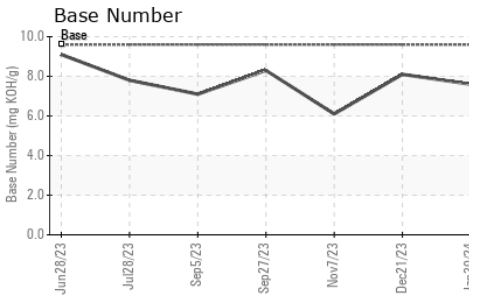
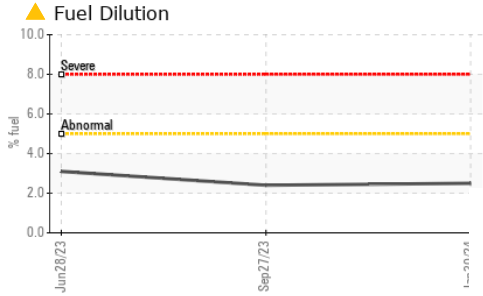
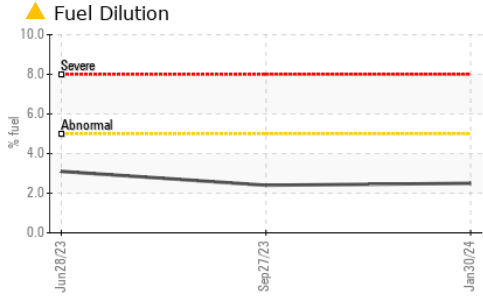
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.4	0.3	0.4
Nitration	Abs/cm	*ASTM D7624 >20	8.2	7.1	7.6
Sulfation	Abs/.1mm	*ASTM D7415 >30	19.0	17.9	18.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.7	13.2	13.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.6	7.6	8.1	6.1



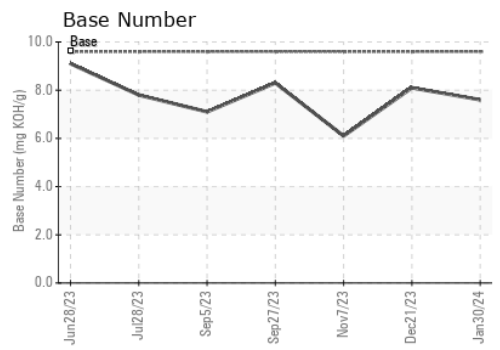
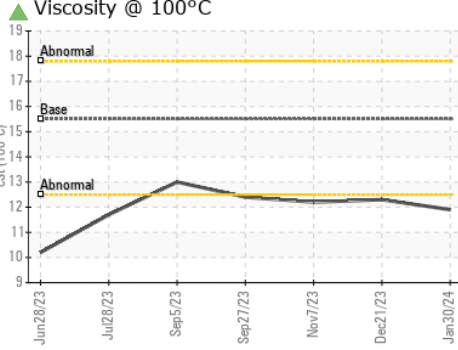
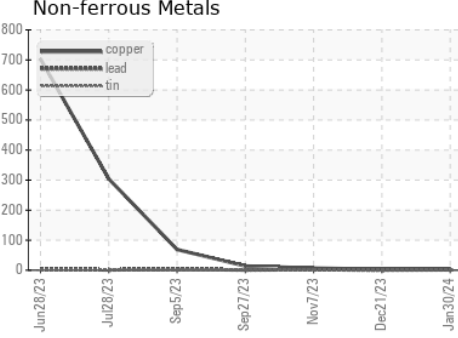
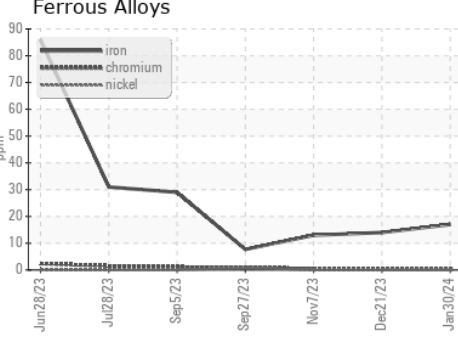
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.5	▲ 11.9	12.3	12.2

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0888221 **Received** : 01 Feb 2024
Lab Number : 06076608 **Tested** : 05 Feb 2024
Unique Number : 10858699 **Diagnosed** : 05 Feb 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

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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)