

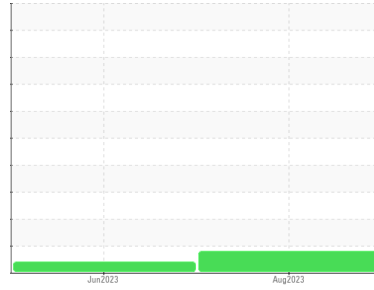


PROBLEM SUMMARY



Machine Id
CATERPILLAR D6 LGP 10039 (S/N KEW01125)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

Sample Rating Trend

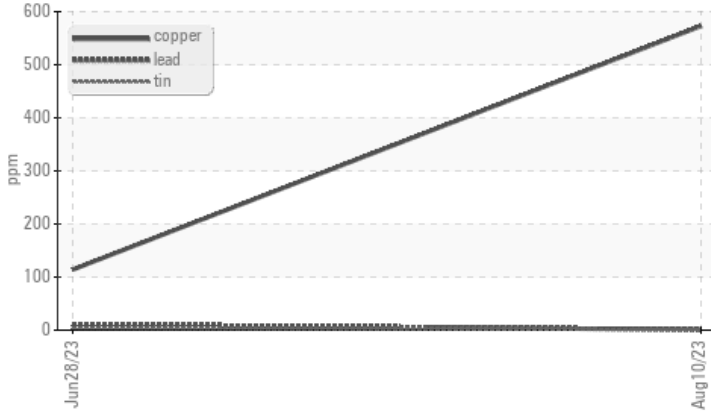


WEAR



COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status	ABNORMAL	ATTENTION	---
Copper	▲ 573	114	---

Customer Id: TRANEW
 Sample No.: WC0837182
 Lab Number: 05925271
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
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jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

HISTORICAL DIAGNOSIS

28 Jun 2023 Diag: Jonathan Hester

VISCOSITY



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

view report





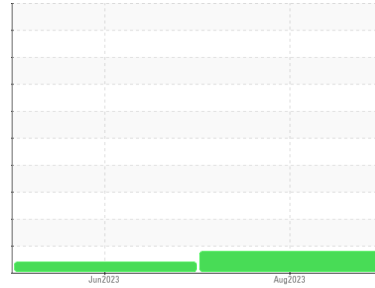
OIL ANALYSIS REPORT

Sample Rating Trend

WEAR



Machine Id
CATERPILLAR D6 LGP 10039 (S/N KEW01125)
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)



DIAGNOSIS

Recommendation

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

Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core).

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 acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0837182	WC0790999	---
Sample Date	Client Info		10 Aug 2023	28 Jun 2023	---
Machine Age	hrs	Client Info	1207	558	---
Oil Age	hrs	Client Info	649	558	---
Oil Changed	Client Info		Changed	Changed	---
Sample Status			ABNORMAL	ATTENTION	---

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	0.2	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	36	52	---
Chromium	ppm	ASTM D5185m	>20	<1	1	---
Nickel	ppm	ASTM D5185m	>2	<1	<1	---
Titanium	ppm	ASTM D5185m	>2	0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	1	5	---
Lead	ppm	ASTM D5185m	>40	<1	11	---
Copper	ppm	ASTM D5185m	>330	▲ 573	114	---
Tin	ppm	ASTM D5185m	>15	<1	4	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	1	<1	30	---
Barium	ppm	ASTM D5185m	1	0	6	---
Molybdenum	ppm	ASTM D5185m	60	63	46	---
Manganese	ppm	ASTM D5185m	1	0	4	---
Magnesium	ppm	ASTM D5185m	1010	1046	625	---
Calcium	ppm	ASTM D5185m	1070	1345	1618	---
Phosphorus	ppm	ASTM D5185m	1150	1123	938	---
Zinc	ppm	ASTM D5185m	1270	1521	1218	---
Sulfur	ppm	ASTM D5185m	2060	3892	3219	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	10	41	---
Sodium	ppm	ASTM D5185m		0	4	---
Potassium	ppm	ASTM D5185m	>20	0	3	---
Glycol	%	*ASTM D2982		NEG	NEG	---

INFRA-RED

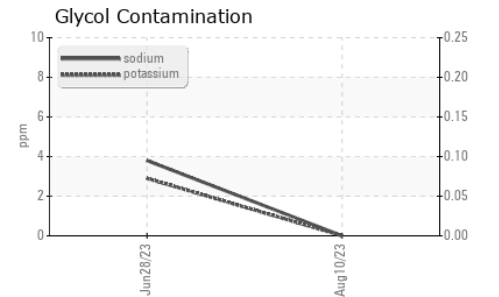
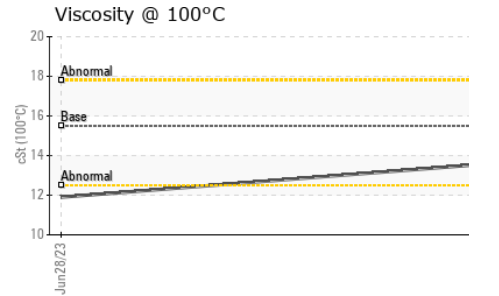
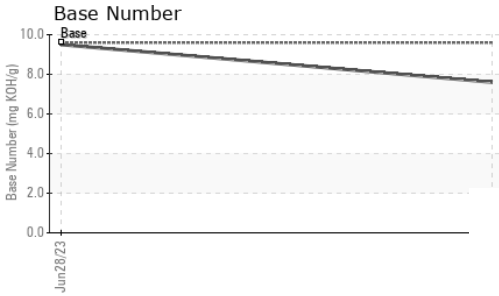
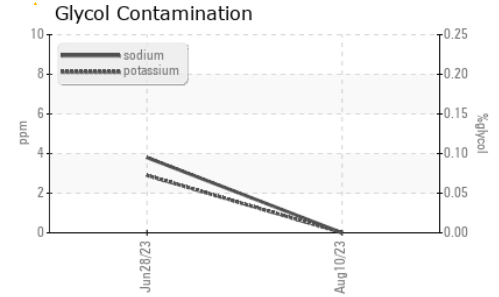
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.9	0.6	---
Nitration	Abs/cm	*ASTM D7624	>20	8.4	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	23.6	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	20.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	7.6	9.5	---



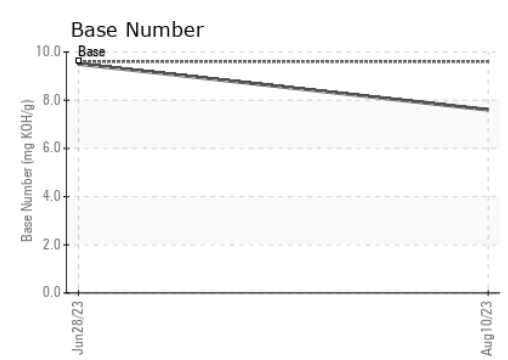
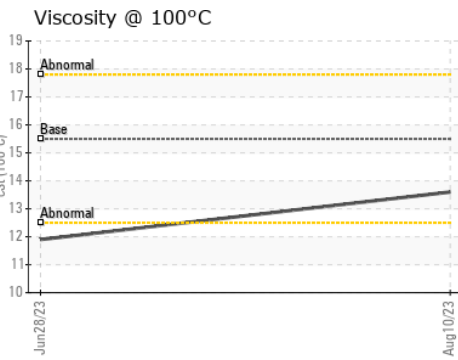
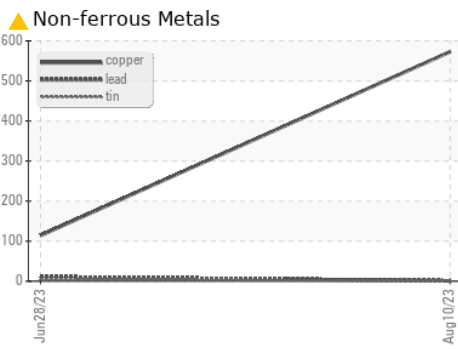
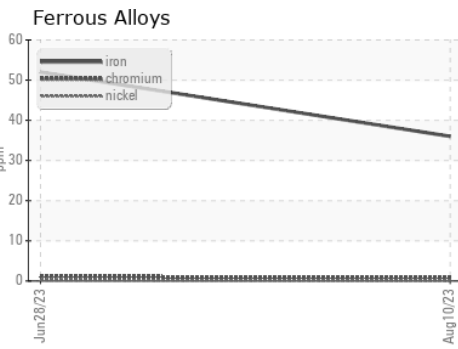
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	13.6	▲ 11.9

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0837182 **Received** : 15 Aug 2023
Lab Number : 05925271 **Diagnosed** : 17 Aug 2023
Unique Number : 10605218 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: Glycol, TBN)

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Certificate L2367
 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)