

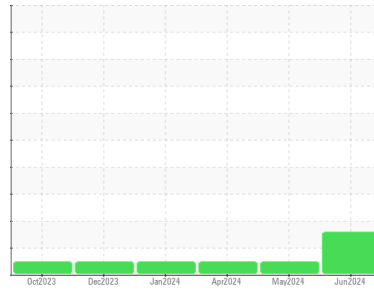


OIL ANALYSIS REPORT



Machine Id
CATERPILLAR R1600H SCP222
 Component
Front Differential
 Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation
 The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear
 Copper and tin ppm levels are abnormal. Thrust washer and/or bearing/bushing wear is indicated.

Contamination
 There is no indication of any contamination in the oil.

Fluid Condition
 The oil is no longer serviceable as a result of the abnormal and/or severe wear.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0940507	WC0940502	WC0920155
Sample Date	Client Info		09 Jun 2024	09 May 2024	10 Apr 2024
Machine Age	hrs	Client Info	1976	1706	1373
Oil Age	hrs	Client Info	0	0	250
Oil Changed	Client Info		Changed	Not Changd	Not Changd
Sample Status			ABNORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>500	23	19	11
Chromium	ppm	ASTM D5185(m)	>3	0	0	0
Nickel	ppm	ASTM D5185(m)	>3	0	<1	0
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>30	2	2	2
Lead	ppm	ASTM D5185(m)	>13	11	8	4
Copper	ppm	ASTM D5185(m)	>103	▲ 119	93	53
Tin	ppm	ASTM D5185(m)	>5	▲ 6	4	2
Antimony	ppm	ASTM D5185(m)	>5	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

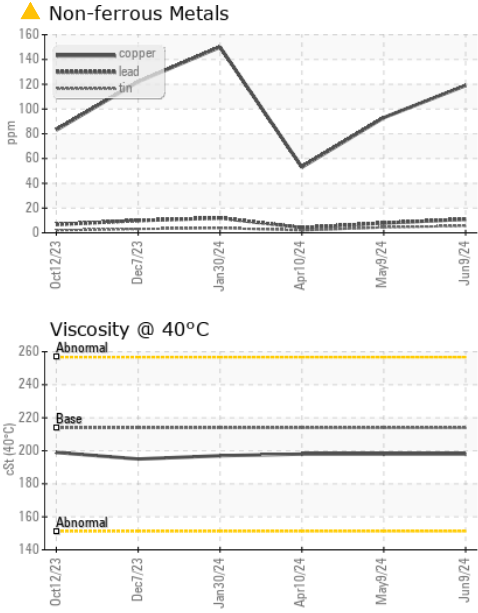
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	2	9	9	9
Barium	ppm	ASTM D5185(m)	0	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1	<1
Manganese	ppm	ASTM D5185(m)	0	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	9	16	16	16
Calcium	ppm	ASTM D5185(m)	3114	3774	3739	3798
Phosphorus	ppm	ASTM D5185(m)	1099	871	857	868
Zinc	ppm	ASTM D5185(m)	1245	949	924	936
Sulfur	ppm	ASTM D5185(m)	7086	6279	6180	6491
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>100	5	6	9
Sodium	ppm	ASTM D5185(m)		1	1	1
Potassium	ppm	ASTM D5185(m)	>20	0	0	<1



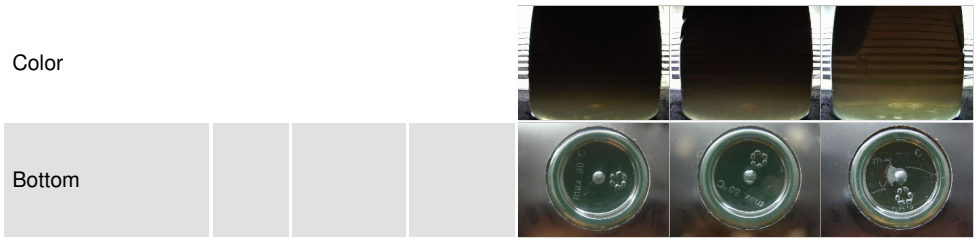
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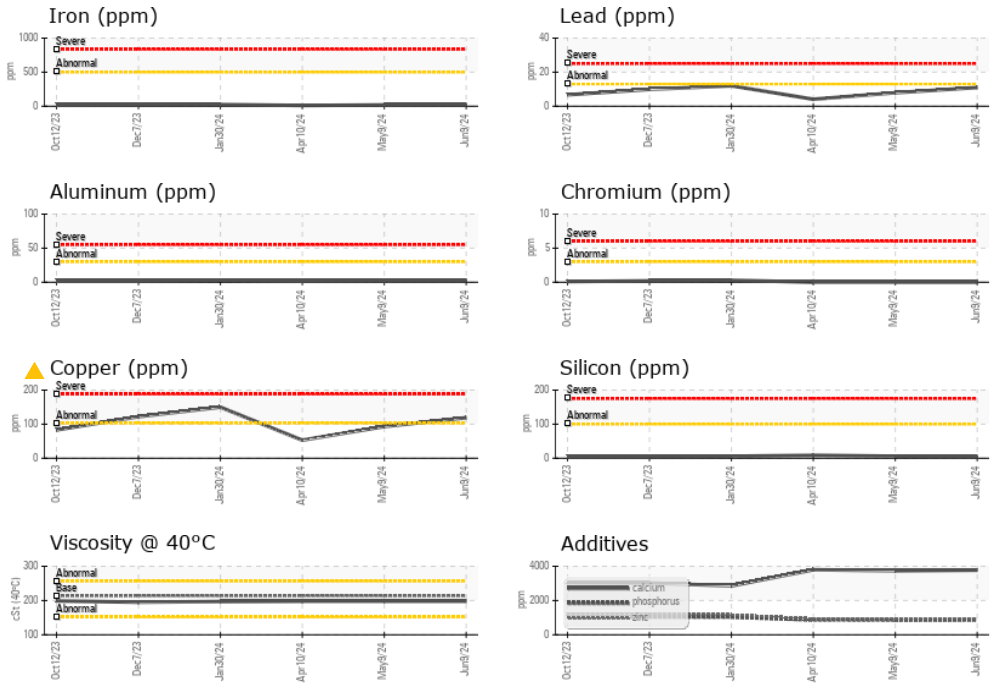
PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	WGOIL
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>.2	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	213.9	198	198

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0940507
Lab Number : 02641814
Unique Number : 5799353
Test Package : MOB 1

Agnico Eagle Canada
 1350 Government Rd. W, MACASSA COMPLEX
 Kirkland Lake, ON
 CA P2N 3J1

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

Contact: Mitch Lamontagne
 AEM_KL_macassaoilsamplesresults@agnicoeagle.com
 T: (705)567-5208
 F: (705)567-5221