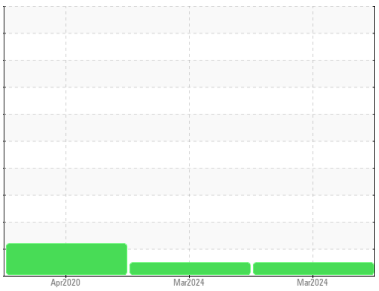
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

Machine Id
CATERPILLAR 980M L56
Component
Rear Differential
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

DIAGNOSIS

Recommendation
Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

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

Fluid Condition
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0118491**	PCA0118451	PCA0016952
Sample Date		Client Info		**25 Mar 2024**	11 Mar 2024	28 Apr 2020
Machine Age	hrs	Client Info		**16640**	16346	5001
Oil Age	hrs	Client Info		**294**	2183	1000
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**NORMAL**	NORMAL	ABNORMAL

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 D5185m	>500	**94**	236	24
Chromium	ppm	ASTM D5185m	>3	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>3	**0**	0	<1
Titanium	ppm	ASTM D5185m	>2	**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>30	**3**	15	3
Lead	ppm	ASTM D5185m	>13	**0**	3	<1
Copper	ppm	ASTM D5185m	>103	**14**	77	20
Tin	ppm	ASTM D5185m	>5	**0**	<1	0
Antimony	ppm	ASTM D5185m	>5	**---**	---	0
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	2	**213**	6	<1
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**<1**	0	0
Manganese	ppm	ASTM D5185m	0	**1**	4	<1
Magnesium	ppm	ASTM D5185m	9	**6**	23	8
Calcium	ppm	ASTM D5185m	3114	**329**	2966	2699
Phosphorus	ppm	ASTM D5185m	1099	**831**	982	868
Zinc	ppm	ASTM D5185m	1245	**134**	1163	1062
Sulfur	ppm	ASTM D5185m	7086	**17646**	6078	8740

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>100	**5**	18	15
Sodium	ppm	ASTM D5185m		**2**	1	1
Potassium	ppm	ASTM D5185m	>20	**0**	0	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	3.27	**1.36**	1.55	1.423

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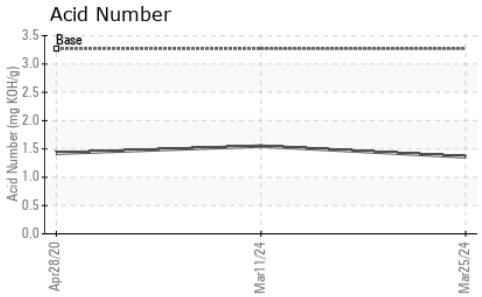
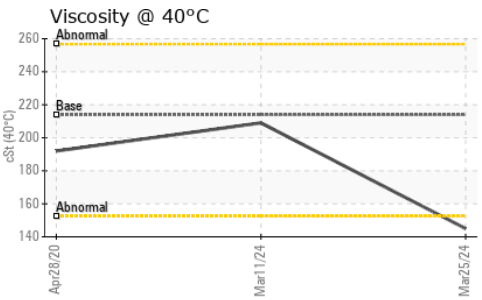
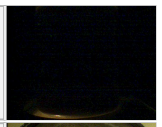


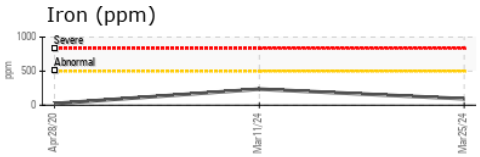


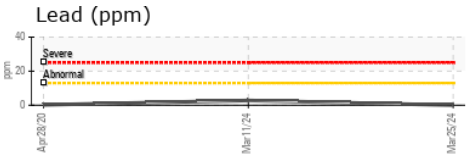
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	▲ HEAVY
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

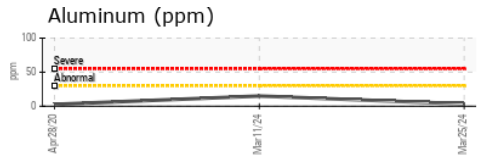
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	213.9	**145**	209	192

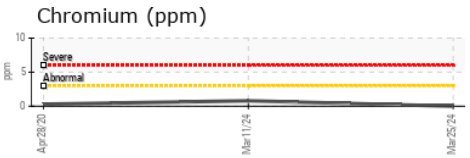
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	
Bottom			*no image*	*no image*	

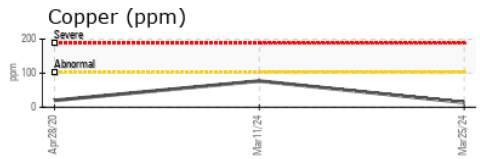
GRAPHS

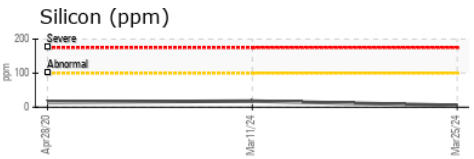


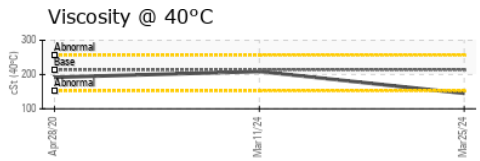


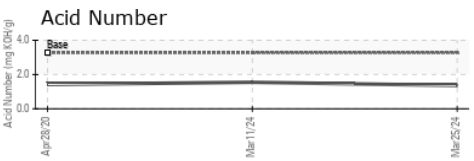












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0118491
Lab Number : 06132216
Unique Number : 10951681
Test Package : MOB 2

Received : 28 Mar 2024
Tested : 29 Mar 2024
Diagnosed : 02 Apr 2024 - Jonathan Hester

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)

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