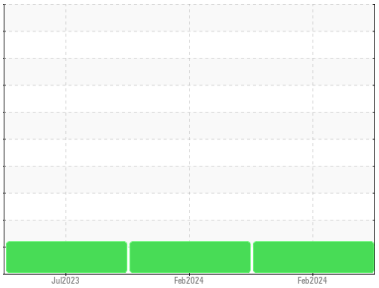
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
G.LOPES CONSTRUCTION INC./OFF-ROAD
Machine Id
L-63
Component
Front Right Final Drive
Fluid
PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. NOTE: one of two samples received with same ID and sampling date.

Wear

Gear wear is indicated. All other metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. This plus the additive levels indicates the addition of a different brand, or type of oil. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0109853**	PCA0098340	PCA0090753
Sample Date		Client Info		**15 Feb 2024**	14 Feb 2024	03 Jul 2023
Machine Age	hrs	Client Info		**1924**	1924	343
Oil Age	hrs	Client Info		**1924**	1924	343
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>500	▲ **757**	▲ 754	▲ 624
Chromium	ppm	ASTM D5185m	>10	**2**	2	2
Nickel	ppm	ASTM D5185m	>10	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**3**	3	5
Lead	ppm	ASTM D5185m	>25	**0**	0	<1
Copper	ppm	ASTM D5185m	>50	**48**	47	46
Tin	ppm	ASTM D5185m	>10	**0**	0	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	**0**	0	3
Barium	ppm	ASTM D5185m	0	**13**	13	5
Molybdenum	ppm	ASTM D5185m	0	**10**	10	10
Manganese	ppm	ASTM D5185m	0	**8**	8	8
Magnesium	ppm	ASTM D5185m	9	**10**	10	11
Calcium	ppm	ASTM D5185m	3114	**2729**	2722	3073
Phosphorus	ppm	ASTM D5185m	1099	**1044**	1059	1068
Zinc	ppm	ASTM D5185m	1245	**1174**	1147	1270
Sulfur	ppm	ASTM D5185m	7086	**4522**	4642	4678

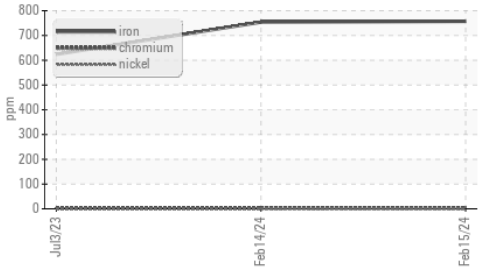
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>75	**6**	5	6
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**2**	2	2

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	3.27	**1.74**	1.73	1.83

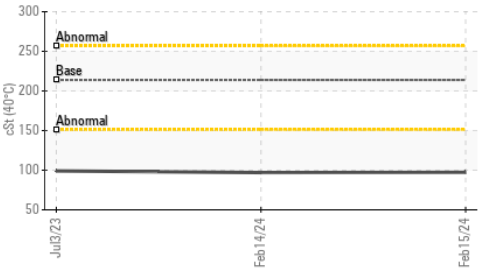
OIL ANALYSIS REPORT

OIL DIAGNOSTICS

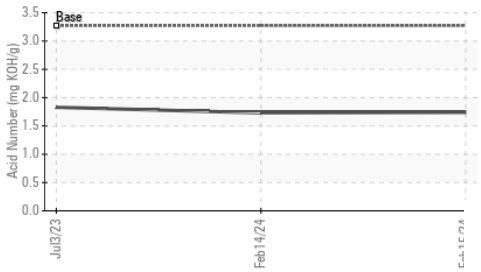
Ferrous Alloys



Viscosity @ 40°C



Acid Number



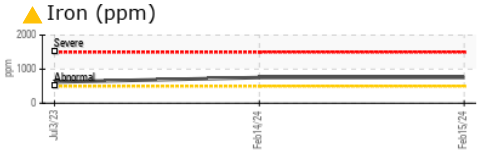
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	MODER
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**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	▲ **97.3**	▲ 97.0	▲ 99.1

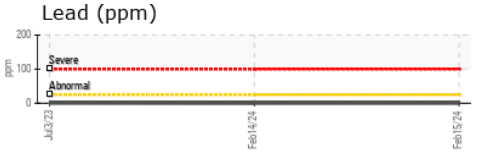
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	
Bottom			*no image*	*no image*	

GRAPHS

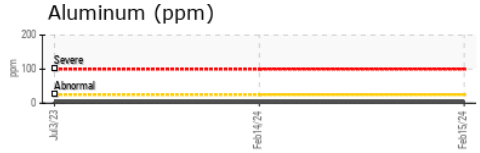
Iron (ppm)



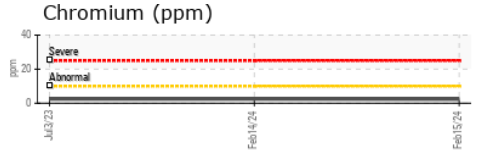
Lead (ppm)



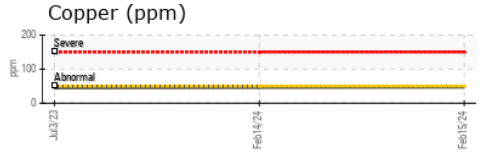
Aluminum (ppm)



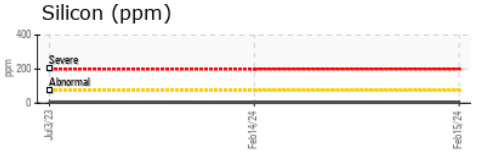
Chromium (ppm)



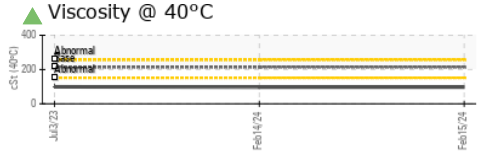
Copper (ppm)



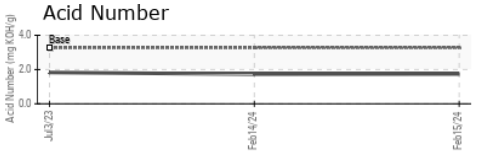
Silicon (ppm)



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0109853
Lab Number : 06093146
Unique Number : 10885999
Test Package : MOB 2

Received : 19 Feb 2024
Tested : 20 Feb 2024
Diagnosed : 21 Feb 2024 - Don Baldridge

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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