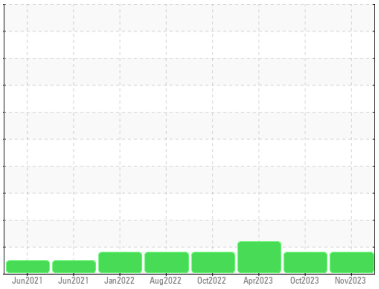
OIL ANALYSIS REPORT

Area
Loader
Machine Id
SRF0110
Component
Front Axle
Fluid
PETRO CANADA PRODURO TO-4 SAE 30 (84 LTR)

Sample Rating Trend



VISCOSITY

DIAGNOSIS

Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA PRODURO TO-4 SAE 30, however, a fluid match indicates that this fluid is SAE 5W20 Transmission/Drive Train Oil. Please confirm the oil type and grade on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

Viscosity of sample indicates oil is within SAE 5W20 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PC0074868**	PC0051327	PC0067283
Sample Date		Client Info		**21 Nov 2023**	23 Oct 2023	02 Apr 2023
Machine Age	hrs	Client Info		**28756**	28318	25313
Oil Age	hrs	Client Info		**0**	0	0
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 D5185(m)	>500	**31**	36	6
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>10	**0**	<1	0
Titanium	ppm	ASTM D5185(m)		**0**	0	<1
Silver	ppm	ASTM D5185(m)		**<1**	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	1	<1
Lead	ppm	ASTM D5185(m)	>25	**<1**	0	0
Copper	ppm	ASTM D5185(m)	>50	**6**	4	1
Tin	ppm	ASTM D5185(m)	>10	**0**	0	0
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	**1**	2	9
Barium	ppm	ASTM D5185(m)	0	**<1**	<1	0
Molybdenum	ppm	ASTM D5185(m)	0	**0**	0	1
Manganese	ppm	ASTM D5185(m)	9	**0**	0	<1
Magnesium	ppm	ASTM D5185(m)	1	**7**	11	24
Calcium	ppm	ASTM D5185(m)	3131	**2106**	2166	2299
Phosphorus	ppm	ASTM D5185(m)	1194	**842**	872	925
Zinc	ppm	ASTM D5185(m)	1281	**993**	1024	1022
Sulfur	ppm	ASTM D5185(m)	3811	**2578**	2908	2739
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>75	**3**	5	4
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	<1

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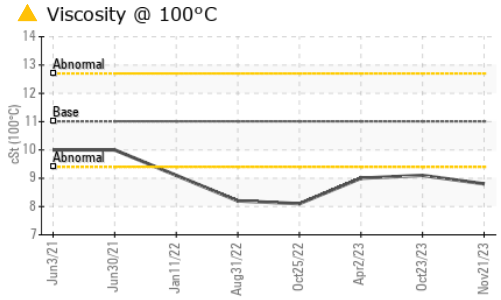
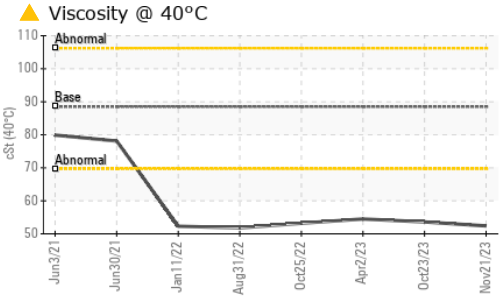
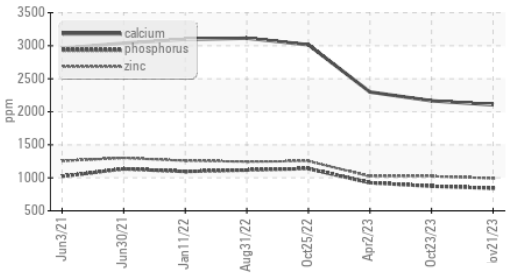
Viscosity @ 100°C



Viscosity @ 40°C

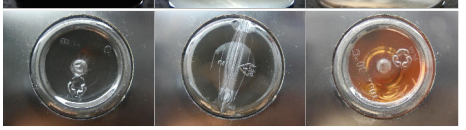


Additives



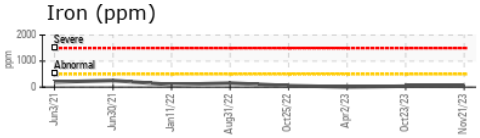
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>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 D7279(m)	88.5	▲ **52.4**	▲ 53.6	▲ 54.5
Visc @ 100°C	cSt	ASTM D7279(m)	11.01	▲ **8.8**	▲ 9.1	▲ 9
Viscosity Index (VI)	Scale	ASTM D2270*	110	**146**	151	▲ 144

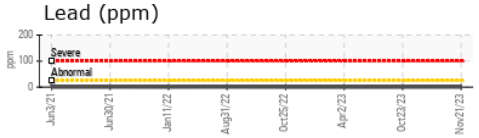
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

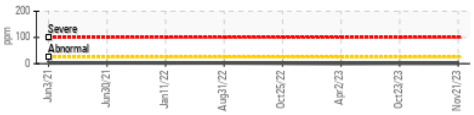
Iron (ppm)



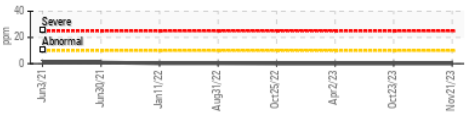
Lead (ppm)



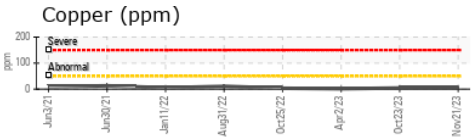
Aluminum (ppm)



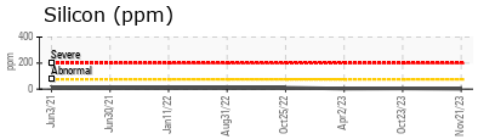
Chromium (ppm)



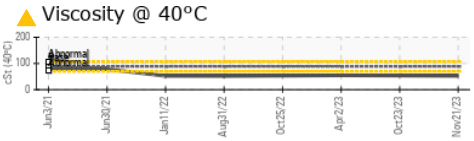
Copper (ppm)



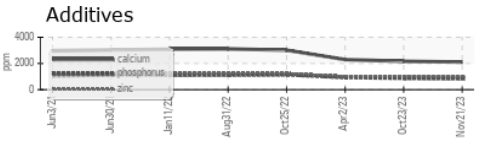
Silicon (ppm)



Viscosity @ 40°C



Additives



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0074868 **Received** : 06 Dec 2023
Lab Number : 02601293 **Diagnosed** : 07 Dec 2023
Unique Number : 5694378 **Diagnostician** : Bill Quesnel
Test Package : MOB 1 (Additional Tests: KV100, VI)

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.

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