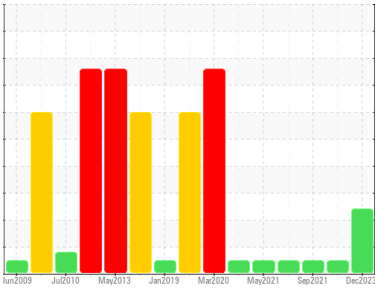
OIL ANALYSIS REPORT

Area
Off-Road
Machine Id
L001
Component
Transmission (Manual)
Fluid
PETRO CANADA PRODURO TO-4 SAE 30 (--- GAL)

Sample Rating Trend



VISCOSITY

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 fluid.

▲ Fluid Condition
The fluid 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		**PCA0090483**	PCA0072042	WC0594543
Sample Date		Client Info		**11 Dec 2023**	03 May 2022	21 Sep 2021
Machine Age	hrs	Client Info		**33559**	33559	33559
Oil Age	hrs	Client Info		**26525**	26525	7034
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ATTENTION**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.1	**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**6**	5	13
Chromium	ppm	ASTM D5185m	>5	**0**	<1	<1
Nickel	ppm	ASTM D5185m	>5	**0**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	<1
Silver	ppm	ASTM D5185m	>7	**0**	<1	2
Aluminum	ppm	ASTM D5185m	>25	**<1**	1	<1
Lead	ppm	ASTM D5185m	>45	**0**	<1	<1
Copper	ppm	ASTM D5185m	>225	**23**	6	18
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	**3**	10	11
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	▲ **29**	1	1
Manganese	ppm	ASTM D5185m	9	**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	1	▲ **481**	24	21
Calcium	ppm	ASTM D5185m	3131	▲ **1171**	3145	3071
Phosphorus	ppm	ASTM D5185m	1194	▲ **753**	1054	1027
Zinc	ppm	ASTM D5185m	1281	**891**	1239	1236
Sulfur	ppm	ASTM D5185m	3811	▲ **2763**	4571	5294

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>125	**10**	3	2
Sodium	ppm	ASTM D5185m		**3**	2	2
Potassium	ppm	ASTM D5185m	>20	**0**	0	0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.84**	1.50	1.510

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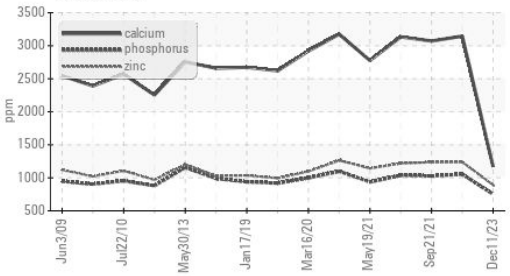
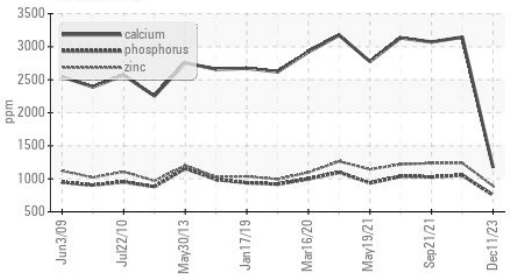
OIL DIAGNOSTICS

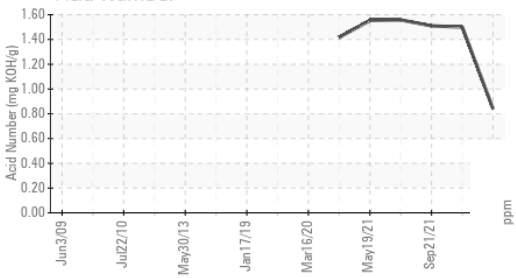
Additives



Additives



Acid Number



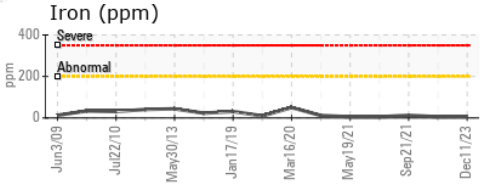
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	88.5	▲ **44.2**	85.44	87.1

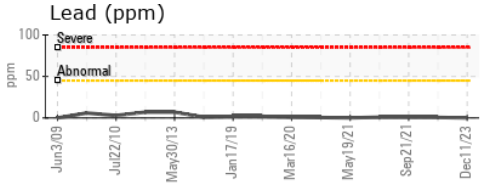
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

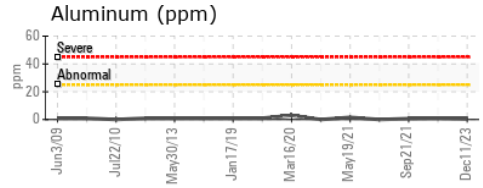
Iron (ppm)



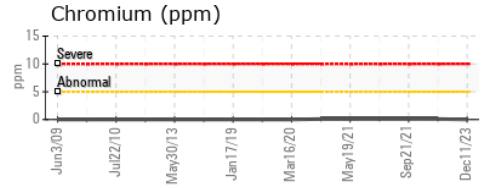
Lead (ppm)



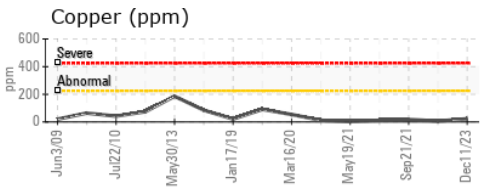
Aluminum (ppm)



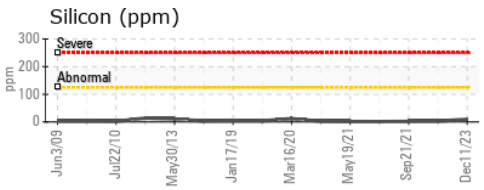
Chromium (ppm)



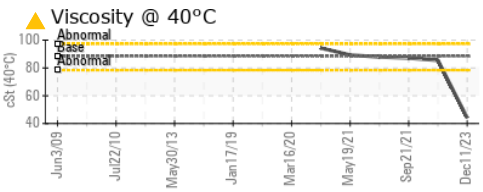
Copper (ppm)



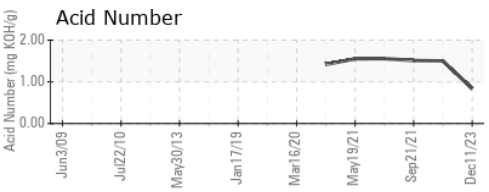
Silicon (ppm)



▲ Viscosity @ 40°C



Acid Number



ANAB ACCREDITED TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0090483
Lab Number : 06033628
Unique Number : 10783419
Test Package : MOB 2

Recieved : 13 Dec 2023
Diagnosed : 17 Dec 2023
Diagnostician : 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)

WIN Waste Innovations - Shop # - Taunton
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TAUNTON, MA
US 02780
Contact: Dave Wilson
dwilson@win-waste.com
T:
F:

Report Id: WINTAU [WUSCAR] 06033628 (Generated: 12/17/2023 12:32:45) Rev: 1

Submitted By: MATT MANOLI