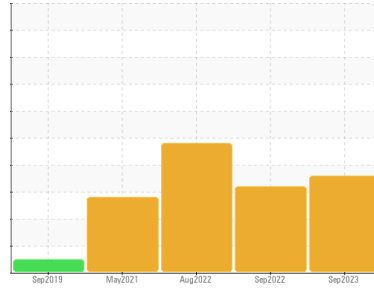


# OIL ANALYSIS REPORT



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
 Machine Id  
**L336**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA DURATRAN (--- GAL)**

Sample Rating Trend



## DIAGNOSIS

- Recommendation**  
No corrective action is recommended at this time. Resample at the next service interval to monitor.
- Wear**  
The iron level is abnormal. All other component wear rates are normal.
- Contamination**  
There is a high amount of silt (particulates < 14 microns in size) present 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	<b>PCA0104664</b>	PCA0078024	PCA0078300
Sample Date	Client Info	<b>05 Sep 2023</b>	28 Sep 2022	31 Aug 2022
Machine Age	hrs	<b>8761</b>	7469	7145
Oil Age	hrs	<b>4488</b>	4594	2657
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >20	<b>▲ 50</b>	▲ 29	▲ 44
Chromium ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Nickel ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium ppm	ASTM D5185m	<b>0</b>	0	<1
Silver ppm	ASTM D5185m	<b>0</b>	0	<1
Aluminum ppm	ASTM D5185m >10	<b>0</b>	<1	2
Lead ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper ppm	ASTM D5185m >75	<b>2</b>	2	5
Tin ppm	ASTM D5185m >10	<b>0</b>	0	<1
Antimony ppm	ASTM D5185m	<b>---</b>	---	---
Vanadium ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m 110	<b>0</b>	0	2
Barium ppm	ASTM D5185m 0.0	<b>7</b>	0	0
Molybdenum ppm	ASTM D5185m 0.0	<b>0</b>	0	0
Manganese ppm	ASTM D5185m 1	<b>&lt;1</b>	<1	<1
Magnesium ppm	ASTM D5185m 13	<b>7</b>	<1	3
Calcium ppm	ASTM D5185m 3610	<b>▲ 172</b>	▲ 166	▲ 134
Phosphorus ppm	ASTM D5185m 1192	<b>▲ 675</b>	▲ 713	▲ 620
Zinc ppm	ASTM D5185m 1455	<b>▲ 890</b>	916	▲ 846
Sulfur ppm	ASTM D5185m 2641	<b>▲ 1905</b>	▲ 1975	▲ 1651

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >20	<b>3</b>	1	7
Sodium ppm	ASTM D5185m	<b>&lt;1</b>	<1	4
Potassium ppm	ASTM D5185m >20	<b>0</b>	0	0

## FLUID CLEANLINESS

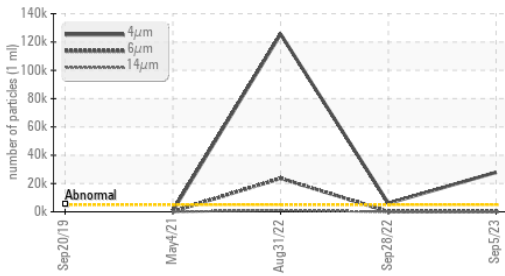
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 27920</b>	▲ 5967	▲ 125598
Particles >6µm	ASTM D7647 >1300	<b>86</b>	145	▲ 23636
Particles >14µm	ASTM D7647 >160	<b>8</b>	15	▲ 1127
Particles >21µm	ASTM D7647 >40	<b>1</b>	4	▲ 211
Particles >38µm	ASTM D7647 >10	<b>0</b>	1	7
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 22/14/10</b>	▲ 20/14/11	▲ 24/22/17

## FLUID DEGRADATION

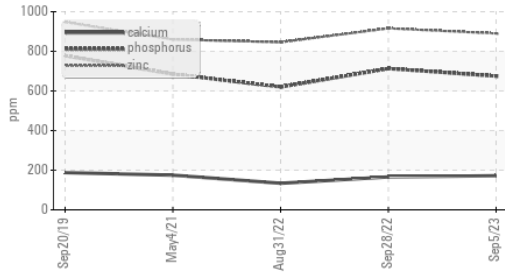
method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045 1.6	<b>0.70</b>	0.85	1.48

# OIL ANALYSIS REPORT

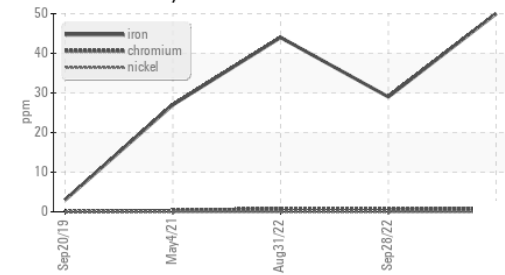
### ▲ Particle Trend



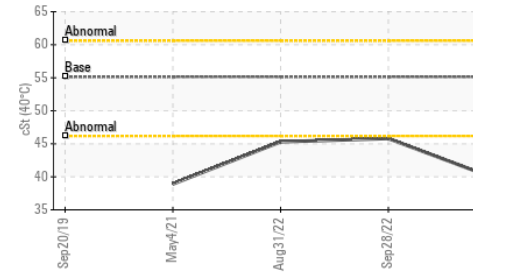
### ▲ Additives



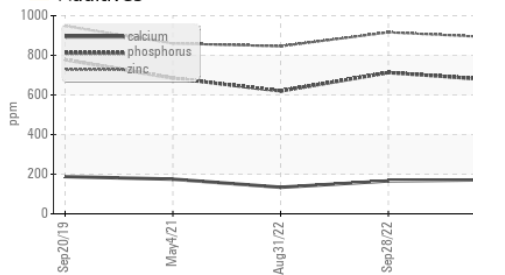
### ▲ Ferrous Alloys



### ▲ Viscosity @ 40°C



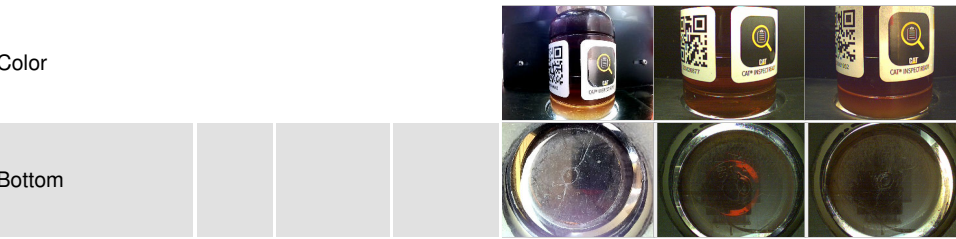
### ▲ Additives



VISUAL	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	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

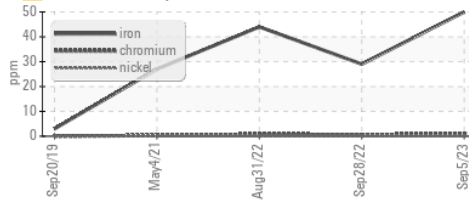
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55.14 ▲ 39.7	▲ 45.8	▲ 45.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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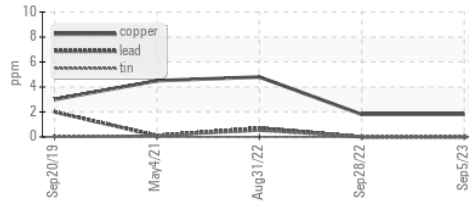


### GRAPHS

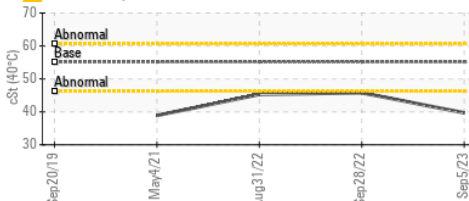
#### ▲ Ferrous Alloys



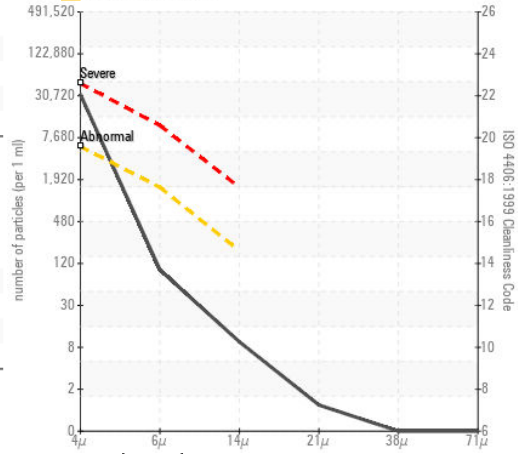
#### Non-ferrous Metals



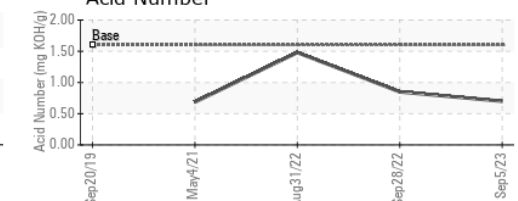
#### ▲ Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0104664 **Received** : 07 Sep 2023  
**Lab Number** : 05944533 **Diagnosed** : 09 Sep 2023  
**Unique Number** : 10635145 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

**G LOPES CONSTRUCTION**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: BUTCH MCGRATH  
 bmcgrath@glopes.com

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)

T:  
F: