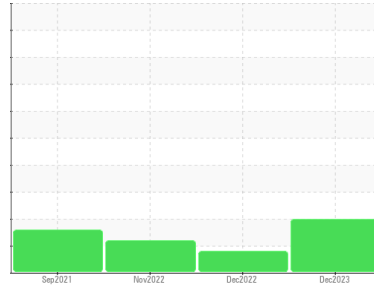


# OIL ANALYSIS REPORT

Sample Rating Trend



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
Machine Id  
**E568**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA DURATRAN (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present 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		<b>PCA0109721</b>	PCA0083337	PCA0083314
Sample Date	Client Info		<b>05 Dec 2023</b>	12 Dec 2022	30 Nov 2022
Machine Age	hrs	Client Info	<b>12272</b>	11854	11812
Oil Age	hrs	Client Info	<b>11027</b>	10651	1203
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>12</b>	11	9
Chromium	ppm	ASTM D5185m >10	<b>6</b>	4	3
Nickel	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	2
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >75	<b>4</b>	3	4
Tin	ppm	ASTM D5185m >10	<b>0</b>	0	0
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>37</b>	36	36
Barium	ppm	ASTM D5185m 0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0.0	<b>6</b>	5	5
Manganese	ppm	ASTM D5185m 1	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 13	<b>52</b>	50	51
Calcium	ppm	ASTM D5185m 3610	<b>1591</b>	1710	1840
Phosphorus	ppm	ASTM D5185m 1192	<b>775</b>	804	791
Zinc	ppm	ASTM D5185m 1455	<b>951</b>	980	1009
Sulfur	ppm	ASTM D5185m 2641	<b>2944</b>	3439	3191

## CONTAMINANTS

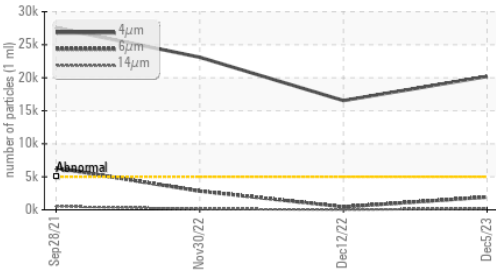
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >20	<b>6</b>	5	5
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	0	2
Potassium	ppm	ASTM D5185m >20	<b>2</b>	2	0

## FLUID CLEANLINESS

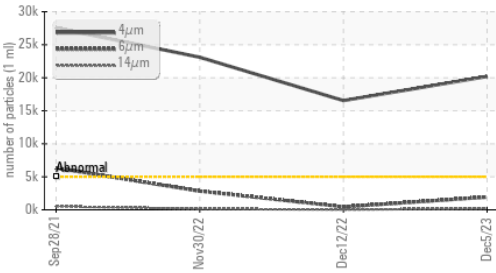
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 20200</b>	▲ 16542	▲ 23104
Particles >6µm	ASTM D7647	>1300	<b>▲ 1934</b>	446	▲ 2835
Particles >14µm	ASTM D7647	>160	<b>▲ 187</b>	24	134
Particles >21µm	ASTM D7647	>40	<b>▲ 63</b>	6	32
Particles >38µm	ASTM D7647	>10	<b>2</b>	1	1
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 22/18/15</b>	▲ 21/16/12	▲ 22/19/14

# OIL ANALYSIS REPORT

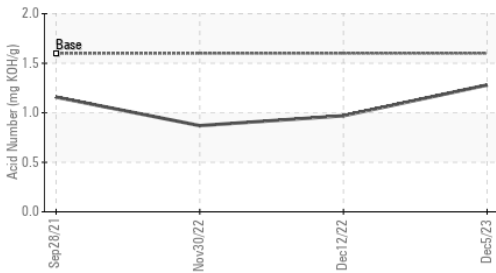
**▲ Particle Trend**



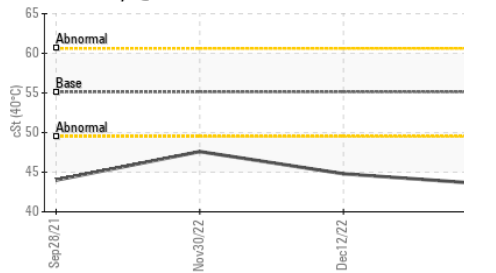
**▲ Particle Trend**



**Acid Number**



**Viscosity @ 40°C**



**FLUID DEGRADATION** method limit/base current history1 history2

Acid Number (AN) mg KOH/g ASTM D8045 1.6 **1.28** 0.97 0.87

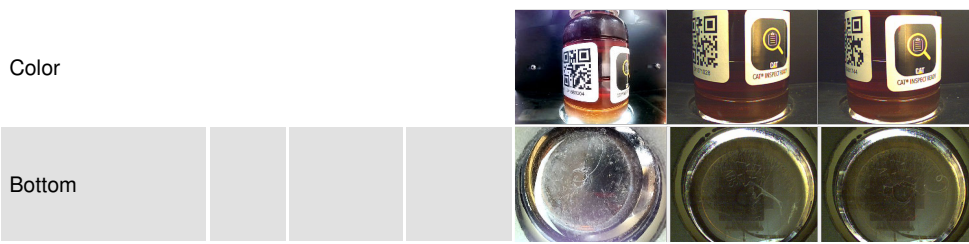
**VISUAL** method limit/base current history1 history2

White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	VLITE	VLITE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

**FLUID PROPERTIES** method limit/base current history1 history2

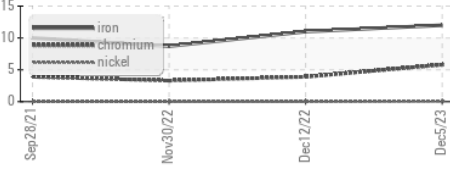
Visc @ 40°C cSt ASTM D445 55.14 **43.5** 44.8 47.6

**SAMPLE IMAGES** method limit/base current history1 history2

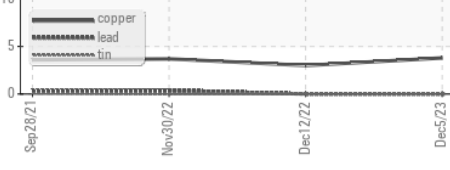


**GRAPHS**

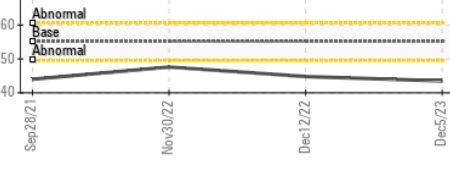
**Ferrous Alloys**



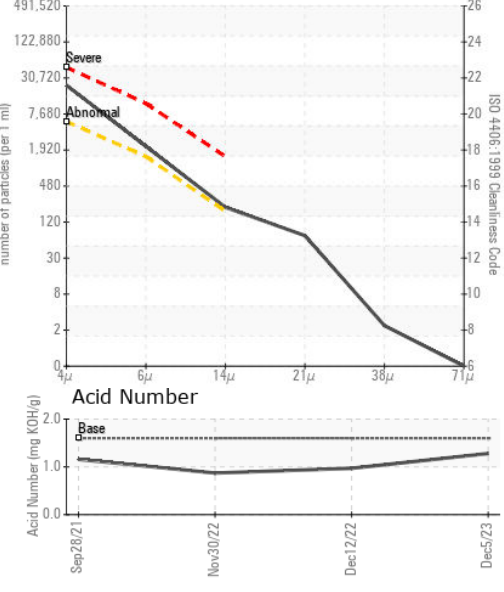
**Non-ferrous Metals**



**Viscosity @ 40°C**



**▲ Particle Count**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0109721 **Received** : 07 Dec 2023  
**Lab Number** : **06027680** **Diagnosed** : 08 Dec 2023  
**Unique Number** : 10777471 **Diagnostician** : Don Baldrige  
**Test Package** : MOB 2

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

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)