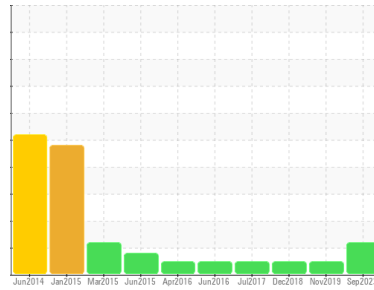




# OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id  
**INTERNATIONAL 2326**

Component  
**Front Diesel Engine**

Fluid  
**PETRO CANADA DURON HP 15W40 (30 QTS)**

## DIAGNOSIS

### Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>RW0004845</b>	RW0000542	RWM2320648
Sample Date	Client Info		<b>13 Sep 2023</b>	15 Nov 2019	08 Dec 2018
Machine Age	hrs	Client Info	<b>8786</b>	6644	6049
Oil Age	hrs	Client Info	<b>150</b>	260	320
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.0	<b>&lt;1.0</b>	<1.0	<1.0

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	<b>31</b>	9	42
Chromium	ppm	ASTM D5185m >20	<b>2</b>	<1	<1
Nickel	ppm	ASTM D5185m >4	<b>2</b>	<1	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m >3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >20	<b>7</b>	4	9
Lead	ppm	ASTM D5185m >40	<b>3</b>	<1	2
Copper	ppm	ASTM D5185m >330	<b>3</b>	1	5
Tin	ppm	ASTM D5185m >15	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185m	<b>---</b>	<1	0
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	<b>369</b>	126	5
Barium	ppm	ASTM D5185m	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>87</b>	52	60
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>400</b>	391	772
Calcium	ppm	ASTM D5185m	<b>1462</b>	1716	1545
Phosphorus	ppm	ASTM D5185m	<b>1056</b>	1018	1075
Zinc	ppm	ASTM D5185m	<b>1228</b>	1160	1219
Sulfur	ppm	ASTM D5185m	<b>3591</b>	2687	2859

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>6</b>	4	6
Sodium	ppm	ASTM D5185m	<b>21</b>	2	4
Potassium	ppm	ASTM D5185m >20	<b>▲ 58</b>	7	1
Glycol	%	*ASTM D2982	<b>NEG</b>	NEG	NEG

## INFRA-RED

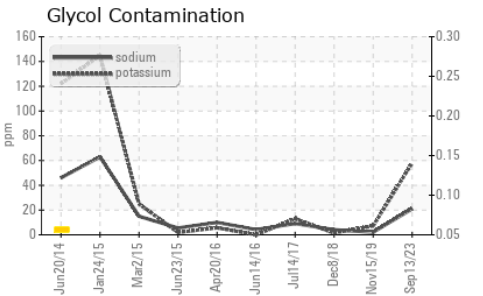
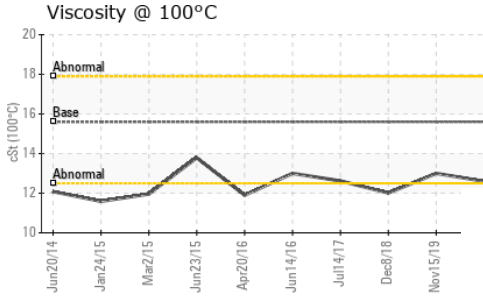
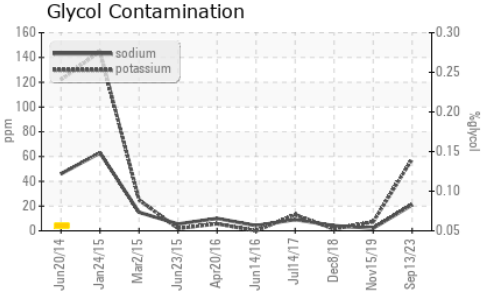
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	<b>0.3</b>	0.3	1.3
Nitration	Abs/cm	*ASTM D7624 >20	<b>6.3</b>	5.9	9.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>18.5</b>	19.5	21.5

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>13.2</b>	15.2	15.8
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	<b>8.71</b>	8.52	8.58



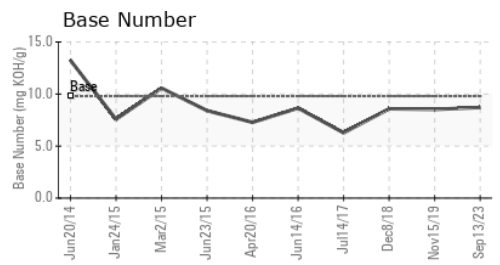
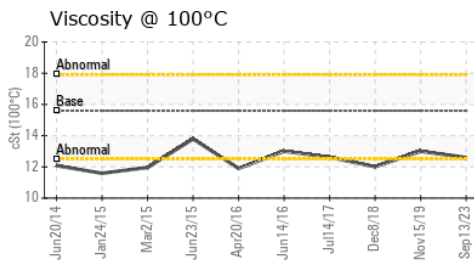
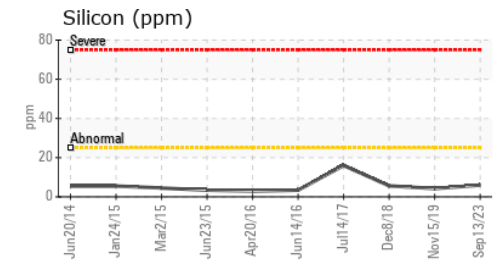
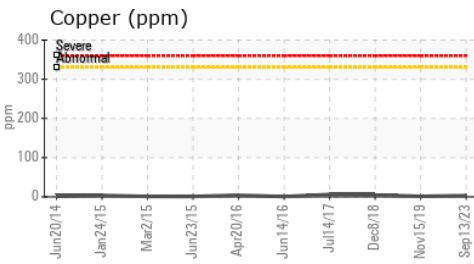
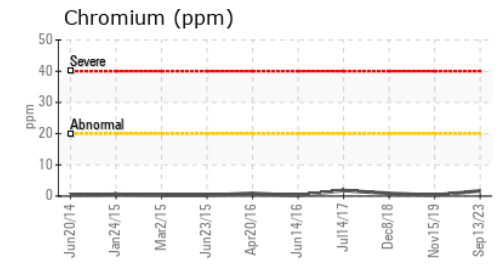
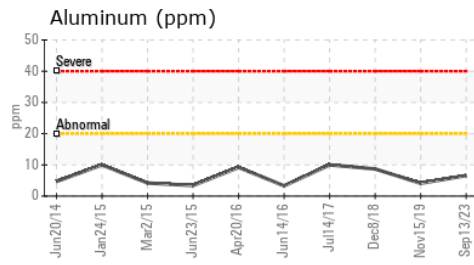
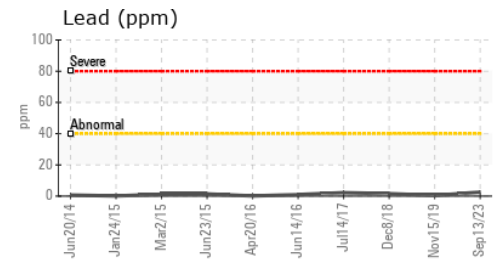
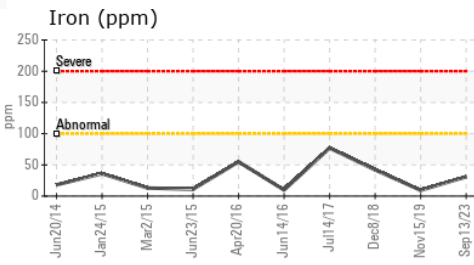
# OIL ANALYSIS REPORT



PARAMETER	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	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	12.6	13.0

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RW0004845 **Received** : 28 Sep 2023  
**Lab Number** : 05963687 **Diagnosed** : 02 Oct 2023  
**Unique Number** : 10670238 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2 ( Additional Tests: Glycol )

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 F: (231)724-4090

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)