



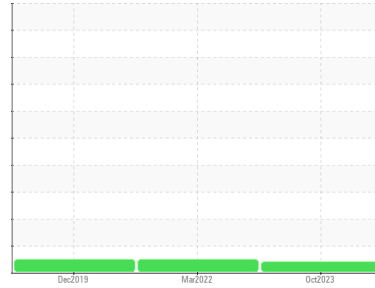
# OIL ANALYSIS REPORT

Sample Rating Trend

VISCOSITY



Area  
**TRANSMISSION/HANLAN TRANSFER**  
 Machine Id  
**266125 (S/N SBK00824)**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (400)**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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 DURON HP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. Viscosity of sample indicates oil is within SAE 30 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 suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0867639</b>	WC0555890	WC0371929
Sample Date	Client Info		<b>05 Oct 2023</b>	28 Mar 2022	05 Dec 2019
Machine Age	hrs	Client Info	<b>567</b>	513	395
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

## CONTAMINATION

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

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	<b>2</b>	1	3
Chromium	ppm	ASTM D5185(m) >20	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m) >2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185(m) >2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m) >2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185(m) >25	<b>&lt;1</b>	1	1
Lead	ppm	ASTM D5185(m) >40	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185(m) >330	<b>16</b>	6	27
Tin	ppm	ASTM D5185(m) >15	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185(m)	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 0	<b>53</b>	6	59
Barium	ppm	ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185(m) 60	<b>42</b>	54	39
Manganese	ppm	ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m) 1010	<b>554</b>	940	468
Calcium	ppm	ASTM D5185(m) 1070	<b>1570</b>	1117	1683
Phosphorus	ppm	ASTM D5185(m) 1150	<b>929</b>	1036	916
Zinc	ppm	ASTM D5185(m) 1270	<b>1054</b>	1179	1062
Sulfur	ppm	ASTM D5185(m) 2060	<b>2422</b>	2642	2554
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

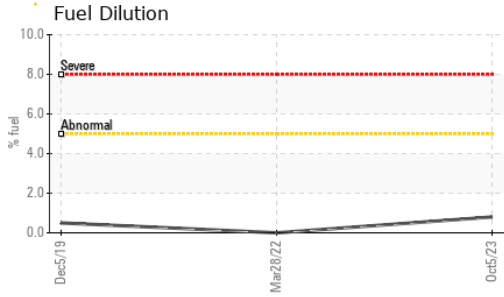
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	<b>8</b>	3	8
Sodium	ppm	ASTM D5185(m)	<b>10</b>	4	24
Potassium	ppm	ASTM D5185(m) >20	<b>&lt;1</b>	<1	2
Fuel	%	ASTM D7593* >5	<b>0.8</b>	<1.0	0.5

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624* >20	<b>4.7</b>	5.0	5.4
Sulfation	Abs/.1mm	ASTM D7415* >30	<b>21.9</b>	20.0	25.2



# OIL ANALYSIS REPORT

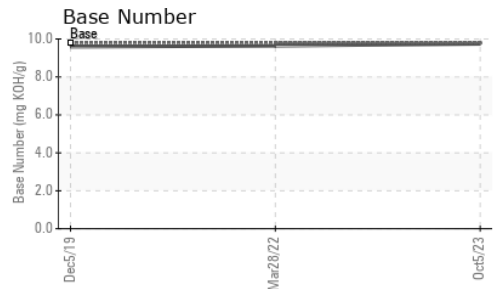
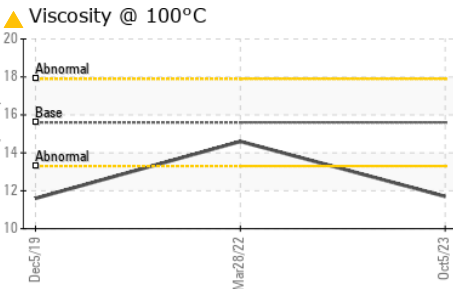
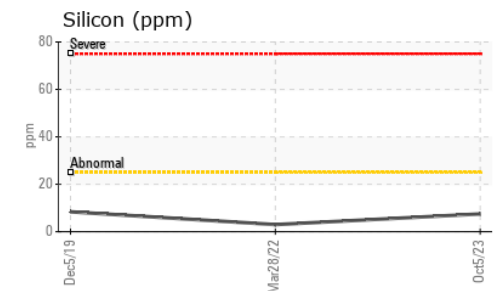
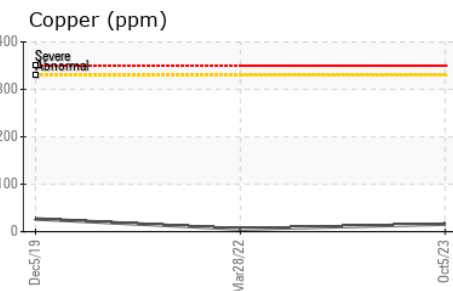
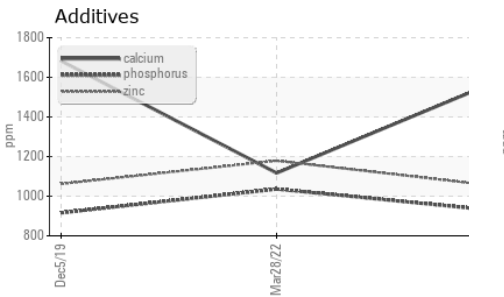
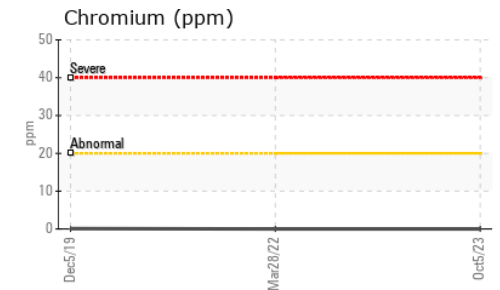
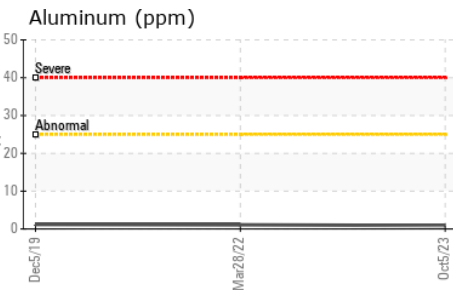
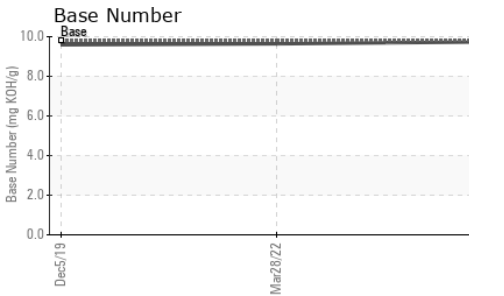
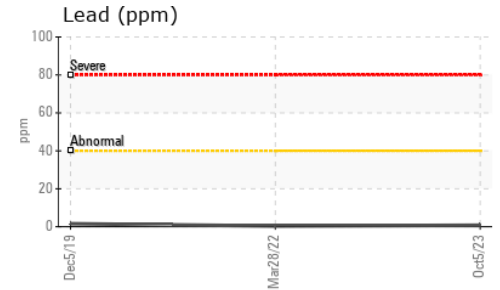
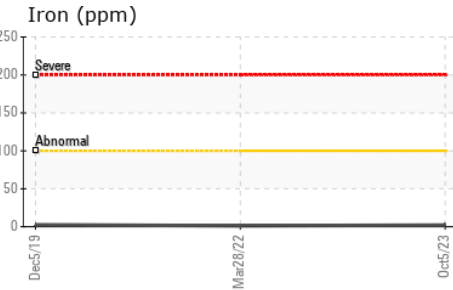
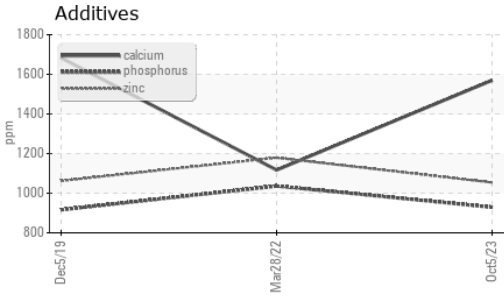


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>18.4</b>	14.4	18.3
Base Number (BN)	mg KOH/g	ASTM D2896*	9.8	<b>9.74</b>	9.64	9.59

VISUAL		method	limit/base	current	history1	history2
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>▲ 11.7</b>	14.6	11.6

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ONTARIO CLEAN WATER AGENCY**  
**Sample No.** : WC0867639 **Received** : 06 Oct 2023 **920 EAST AVENUE**  
**Lab Number** : **02587732** **Diagnosed** : 11 Oct 2023 **MISSISSAUGA, ON**  
**Unique Number** : 5656798 **Diagnostician** : Kevin Marson **CA L5E 1W6**  
**Test Package** : MOB 2 ( Additional Tests: FuelDilution, PercentFuel ) **Contact: Barry Ross**

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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