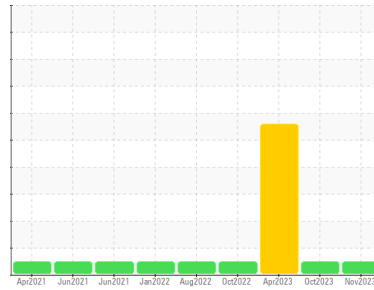


# OIL ANALYSIS REPORT



Area  
**Loader**  
Machine Id  
**SRF0110**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON HP 15W40 (37 LTR)**

Sample Rating Trend



**NORMAL**



## 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 oil.

### Fluid Condition

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>PC0074874</b>	PC0047174	PC0067285
Sample Date	Client Info	<b>21 Nov 2023</b>	23 Oct 2023	02 Apr 2023
Machine Age	hrs	<b>28756</b>	28318	25313
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<b>&lt;1.0</b>	<1.0	<1.0
Water	WC Method >0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method	<b>NEG</b>	NEG	▲ 0.016

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >100	<b>11</b>	8	27
Chromium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185(m) >2	<b>0</b>	0	0
Titanium	ppm ASTM D5185(m) >2	<b>0</b>	0	<1
Silver	ppm ASTM D5185(m) >2	<b>&lt;1</b>	<1	0
Aluminum	ppm ASTM D5185(m) >25	<b>2</b>	3	8
Lead	ppm ASTM D5185(m) >40	<b>&lt;1</b>	<1	5
Copper	ppm ASTM D5185(m) >330	<b>4</b>	5	7
Tin	ppm ASTM D5185(m) >15	<b>0</b>	0	<1
Antimony	ppm ASTM D5185(m)	<b>0</b>	0	0
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>2</b>	1	▲ 23
Barium	ppm ASTM D5185(m) 0	<b>&lt;1</b>	<1	0
Molybdenum	ppm ASTM D5185(m) 60	<b>64</b>	63	▲ 483
Manganese	ppm ASTM D5185(m) 0	<b>0</b>	0	<1
Magnesium	ppm ASTM D5185(m) 1010	<b>987</b>	977	920
Calcium	ppm ASTM D5185(m) 1070	<b>1093</b>	1007	1129
Phosphorus	ppm ASTM D5185(m) 1150	<b>1043</b>	1064	1077
Zinc	ppm ASTM D5185(m) 1270	<b>1255</b>	1217	1221
Sulfur	ppm ASTM D5185(m) 2060	<b>2652</b>	2644	2482
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

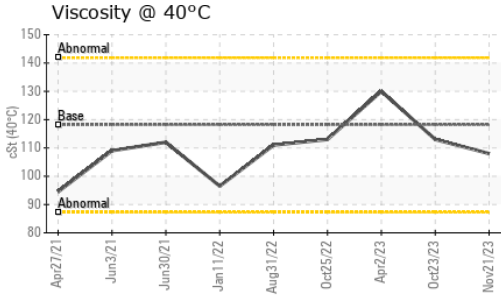
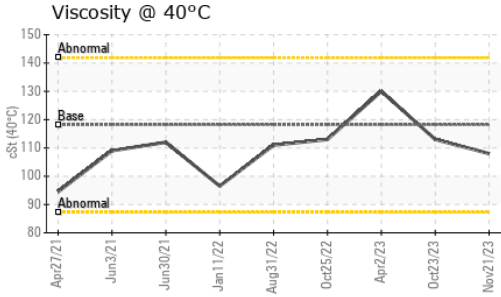
## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>4</b>	3	18
Sodium	ppm ASTM D5185(m)	<b>27</b>	27	▲ 2914
Potassium	ppm ASTM D5185(m) >20	<b>&lt;1</b>	0	▲ 16

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >3	<b>0.2</b>	0	0.5
Nitration	Abs/cm ASTM D7624* >20	<b>8.3</b>	5.5	18.8
Sulfation	Abs.1mm ASTM D7415* >30	<b>19.8</b>	19.0	26.9

# OIL ANALYSIS REPORT

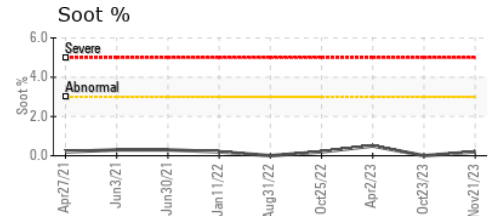
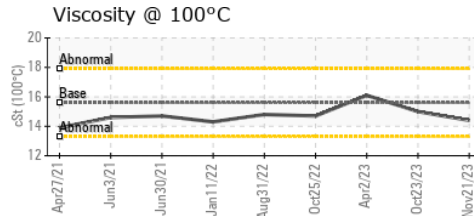
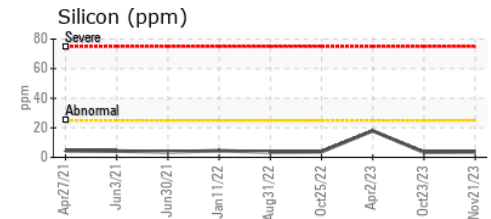
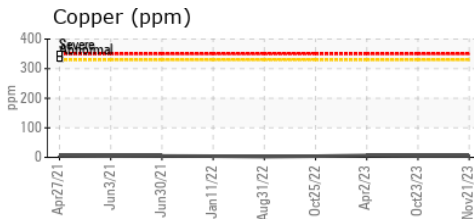
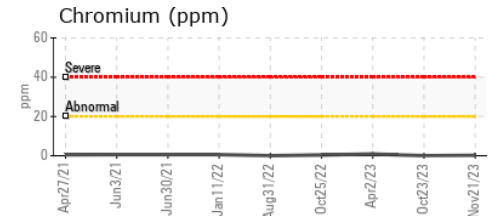
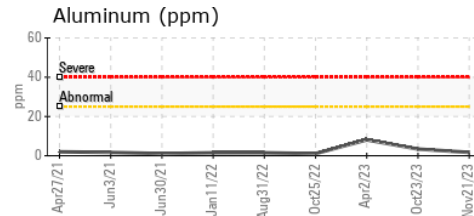
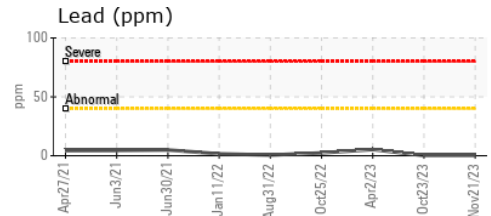
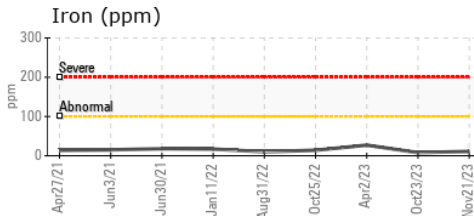


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.3</b>	14.2	21.6

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
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 @ 40°C	cSt	ASTM D7279(m)	118.2	<b>108</b>	113	130
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	<b>14.4</b>	15.0	16.1
Viscosity Index (VI)	Scale	ASTM D2270*	139	<b>136</b>	137	131

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0074874 **Received** : 06 Dec 2023  
**Lab Number** : **02601100** **Diagnosed** : 06 Dec 2023  
**Unique Number** : 5694185 **Diagnostician** : Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**Lakeshore Gold Timmins West**  
 Timmins, ON  
 CA  
 Contact: Adam Koscielak  
 adam.koscielak@HFSinclair.com  
 T:  
 F:

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.