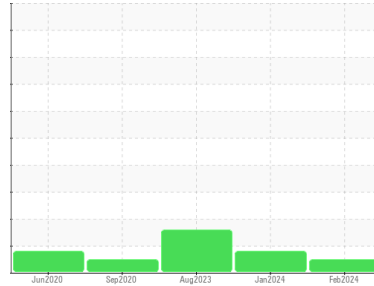


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**DR165**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON UHP 5W40 (20 LTR)**

## 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>PC0082668</b>	PC0082680	PC0078033
Sample Date	Client Info			<b>07 Feb 2024</b>	25 Jan 2024	01 Aug 2023
Machine Age	hrs	Client Info		<b>15273</b>	15273	15045
Oil Age	hrs	Client Info		<b>0</b>	250	0
Oil Changed	Client Info			<b>Not Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	MARGINAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5	<b>&lt;1.0</b>	▲ 2.8	▲ 6.6	
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG	
Glycol	WC Method		<b>NEG</b>	NEG	NEG	

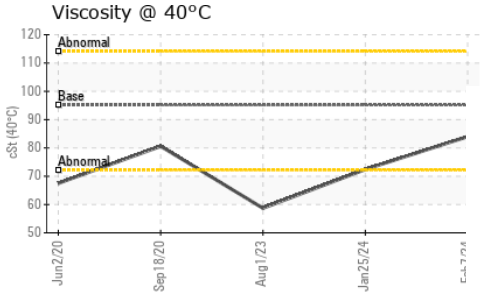
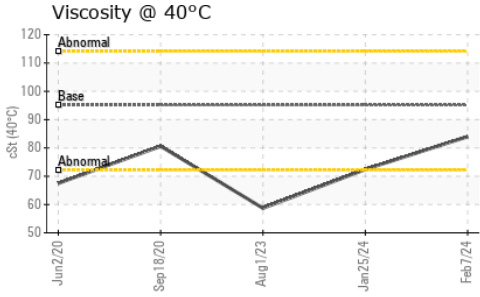
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	<b>3</b>	8	14
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	1
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
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)	65	<b>60</b>	51	44
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	65	<b>55</b>	56	57
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>1071</b>	1072	1067
Calcium	ppm	ASTM D5185(m)	820	<b>793</b>	822	843
Phosphorus	ppm	ASTM D5185(m)	1160	<b>1006</b>	1006	1063
Zinc	ppm	ASTM D5185(m)	1260	<b>1151</b>	1159	1196
Sulfur	ppm	ASTM D5185(m)	3000	<b>2969</b>	2898	2772
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>6</b>	5	8
Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	<b>0</b>	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>6.5</b>	7.9	8.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.8</b>	20.4	21.2

# OIL ANALYSIS REPORT

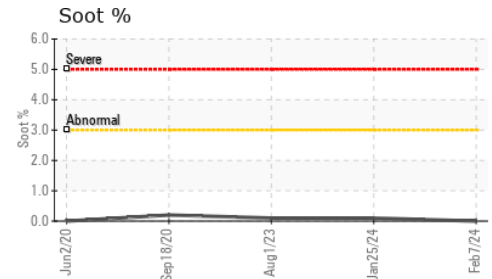
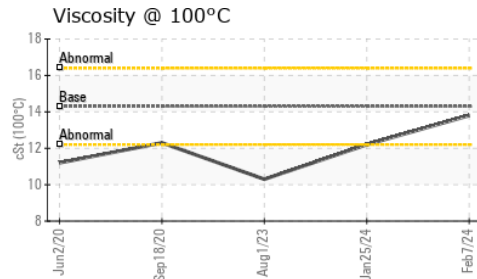
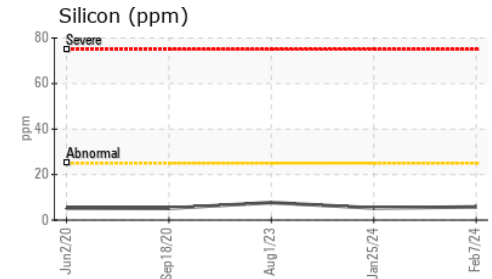
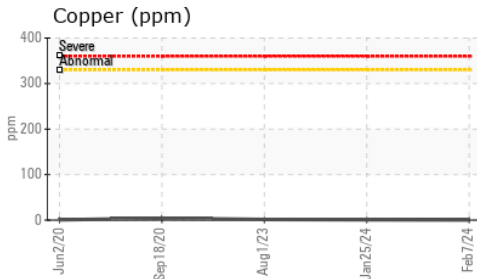
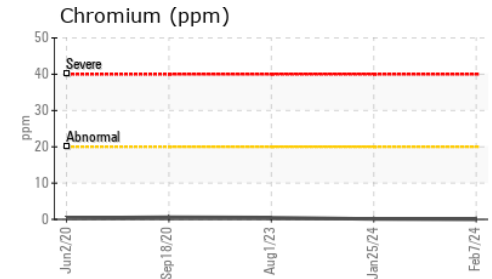
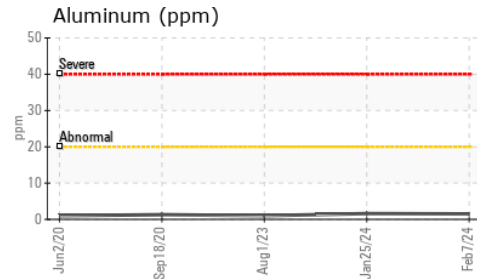
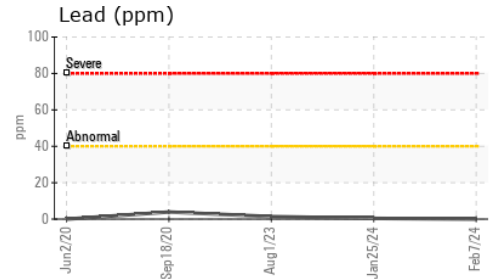
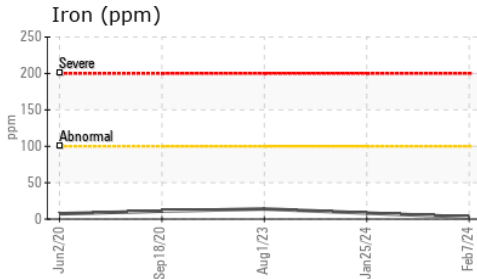


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>16.9</b>	17.8	18.2

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 @ 40°C	cSt	ASTM D7279(m)	95.1	<b>84.0</b>	72.4	▲ 58.7
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>13.8</b>	12.2	▲ 10.3
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>168</b>	166	165

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0082668  
**Lab Number** : 02615543  
**Unique Number** : 5724638  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Shannon Abbott  
 sabbott@gipi.com  
 T: (905)750-5900  
 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.