

**FUEL**



Machine Id

**CR256**

Component

**Diesel Engine**

Fluid

**PETRO CANADA DURON UHP 5W40 (28 LTR)**

**DIAGNOSIS**

**Recommendation**

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.

**Wear**

All component wear rates are normal.

**Contamination**

Light fuel dilution occurring. No other contaminants were detected 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>PC0089312</b>	PC0078375	PC0078553
Sample Date	Client Info	<b>20 Apr 2024</b>	02 Dec 2023	14 Jul 2023
Machine Age	hrs	<b>8727</b>	10721	0
Oil Age	hrs	<b>0</b>	250	0
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>MARGINAL</b>	NORMAL	NORMAL

**CONTAMINATION**

method	limit/base	current	history1	history2
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>5</b>	5	5
Chromium	ppm ASTM D5185(m) >20	<b>0</b>	0	<1
Nickel	ppm ASTM D5185(m) >4	<b>0</b>	0	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>&lt;1</b>	1	<1
Lead	ppm ASTM D5185(m) >40	<b>0</b>	<1	<1
Copper	ppm ASTM D5185(m) >330	<b>1</b>	1	2
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>29</b>	21	28
Barium	ppm ASTM D5185(m) 0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185(m) 65	<b>55</b>	51	53
Manganese	ppm ASTM D5185(m) 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185(m) 1160	<b>1039</b>	980	1025
Calcium	ppm ASTM D5185(m) 820	<b>783</b>	744	765
Phosphorus	ppm ASTM D5185(m) 1160	<b>931</b>	933	1011
Zinc	ppm ASTM D5185(m) 1260	<b>1096</b>	1082	1118
Sulfur	ppm ASTM D5185(m) 3000	<b>2590</b>	2666	2658
Lithium	ppm ASTM D5185(m)	<b>&lt;1</b>	<1	<1

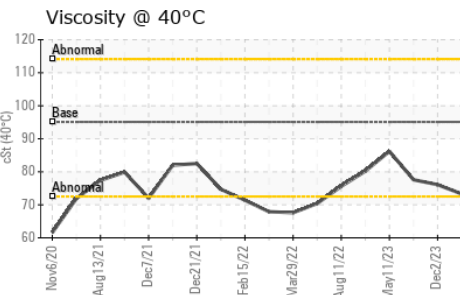
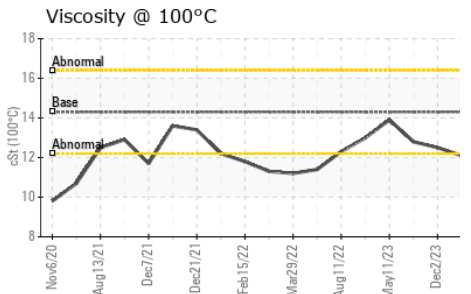
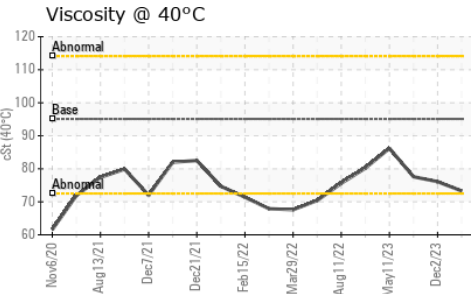
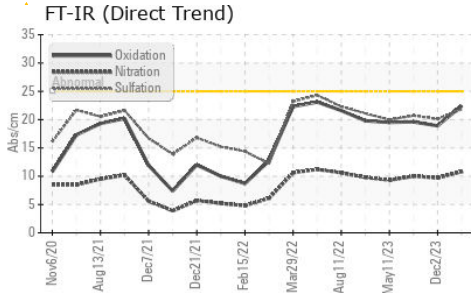
**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	<b>2</b>	3	5
Sodium	ppm ASTM D5185(m)	<b>3</b>	2	3
Potassium	ppm ASTM D5185(m) >20	<b>1</b>	2	<1
Fuel	% ASTM D7593* >5	<b>▲ 3.8</b>	<1.0	<1.0

**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>10.8</b>	9.7	10.0
Sulfation	Abs/.1mm ASTM D7415* >30	<b>21.8</b>	20.1	20.7

# OIL ANALYSIS REPORT

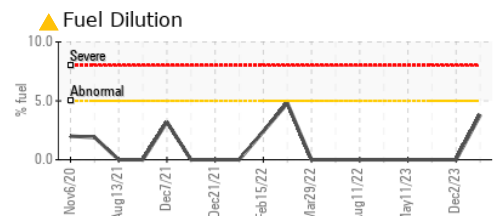
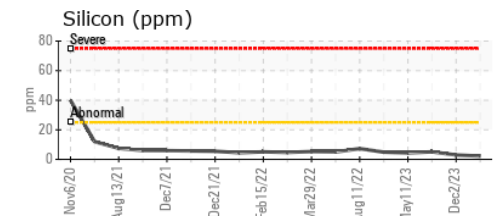
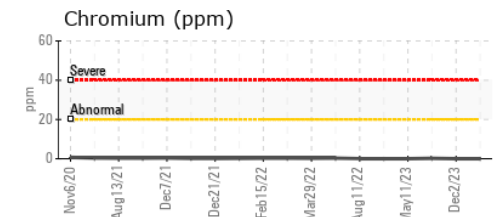
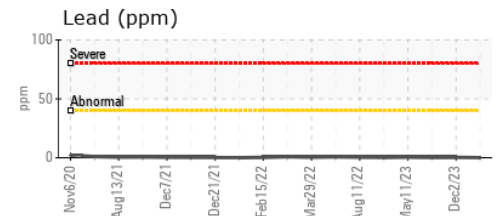
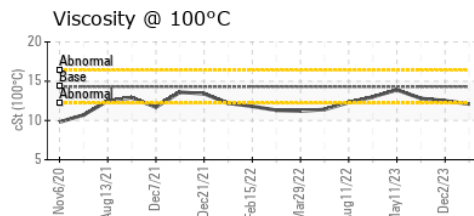
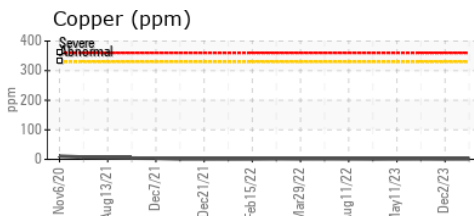
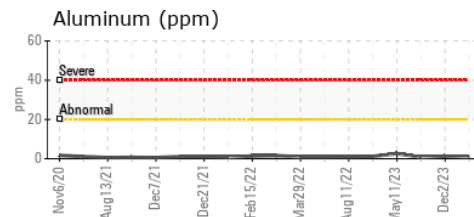
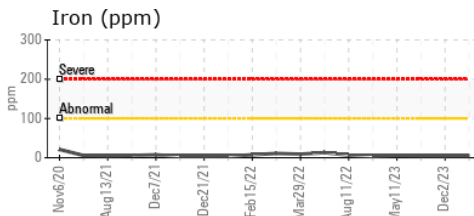


FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs./1mm	ASTM D7414*	>25	<b>22.4</b>	18.9	19.6

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)	95.1	<b>73.3</b>	76.1	77.6
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>12.1</b>	12.5	12.8
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>162</b>	163	165

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations**  
**Sample No.** : PC0089312 **Received** : 25 Apr 2024 **151 Ram Forest Rd,**  
**Lab Number** : **02631263** **Tested** : 26 Apr 2024 **Stouffville, ON**  
**Unique Number** : 5772416 **Diagnosed** : 26 Apr 2024 - Wes Davis **CA L4A 2G8**  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual ) **Contact: Shannon Abbott**  
**sabbott@gipi.com**

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.

**T: (905)750-5900**  
**F:**