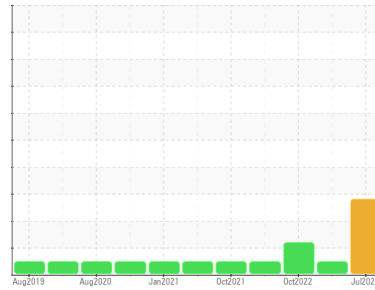


OIL ANALYSIS REPORT

Sample Rating Trend



FUEL



Machine Id
OR1050
Component
Diesel Engine
Fluid
PETRO CANADA DURON UHP 5W40 (12 LTR)

DIAGNOSIS

Recommendation

We advise that you check the fuel injection system. The oil 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

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PC0078556	PC0072019	PC0065689
Sample Date	Client Info		21 Jul 2023	24 Feb 2023	17 Oct 2022
Machine Age	hrs	Client Info	7514	7060	0
Oil Age	hrs	Client Info	500	500	0
Oil Changed	Client Info		Changed	Changed	N/A
Sample Status			SEVERE	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m) >100	8	17	45
Chromium	ppm	ASTM D5185(m) >20	<1	<1	<1
Nickel	ppm	ASTM D5185(m) >2	0	0	<1
Titanium	ppm	ASTM D5185(m) >2	0	<1	<1
Silver	ppm	ASTM D5185(m) >2	0	0	0
Aluminum	ppm	ASTM D5185(m) >25	1	2	1
Lead	ppm	ASTM D5185(m) >40	0	0	0
Copper	ppm	ASTM D5185(m) >330	<1	<1	<1
Tin	ppm	ASTM D5185(m) >15	0	0	0
Antimony	ppm	ASTM D5185(m)	0	0	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m) 65	33	34	2
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 65	54	52	<1
Manganese	ppm	ASTM D5185(m) 0	0	<1	<1
Magnesium	ppm	ASTM D5185(m) 1160	974	998	13
Calcium	ppm	ASTM D5185(m) 820	697	791	3169
Phosphorus	ppm	ASTM D5185(m) 1160	912	1002	1123
Zinc	ppm	ASTM D5185(m) 1260	1008	1090	1265
Sulfur	ppm	ASTM D5185(m) 3000	2421	2591	9355
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m) >25	4	4	6
Sodium	ppm	ASTM D5185(m)	4	4	1
Potassium	ppm	ASTM D5185(m) >20	<1	0	<1
Fuel	%	ASTM D7593* >5	10.5	<1.0	2.3

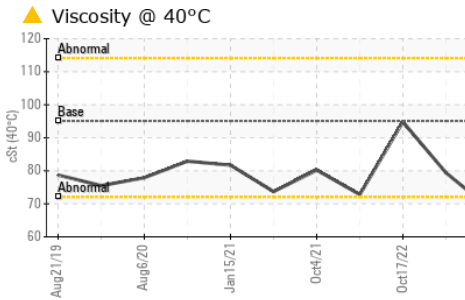
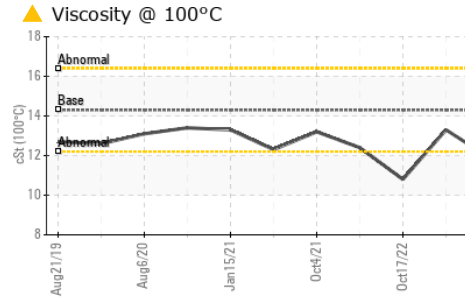
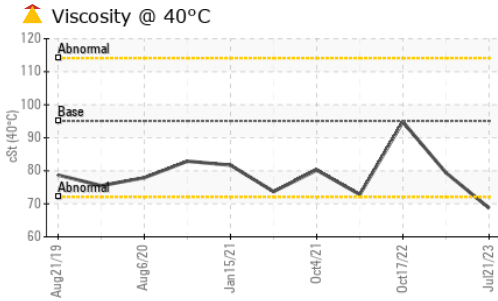
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	ASTM D7844* >3	0.1	0.5	0
Nitration	Abs/cm	ASTM D7624* >20	10.0	10.4	4.6
Sulfation	Abs/.1mm	ASTM D7415* >30	20.1	23.9	17.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414* >25	19.1	19.9	4.0

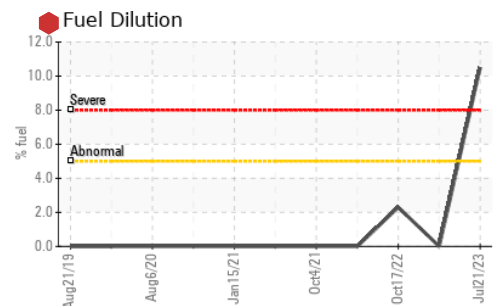
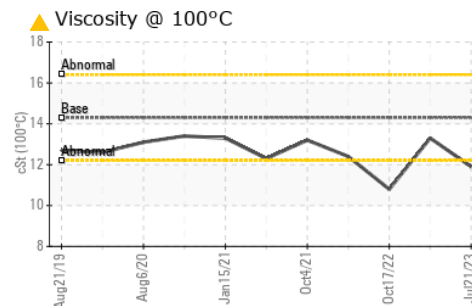
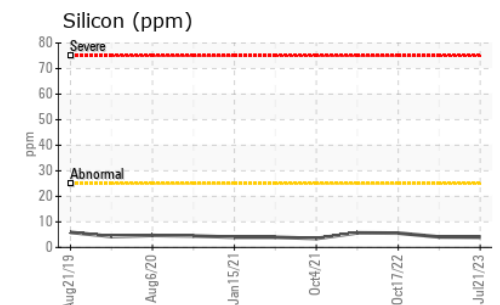
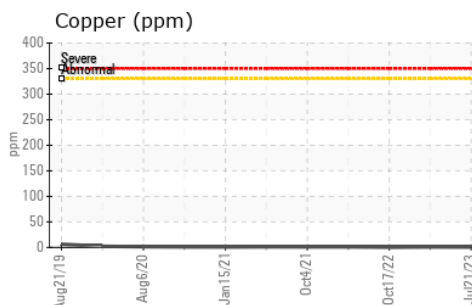
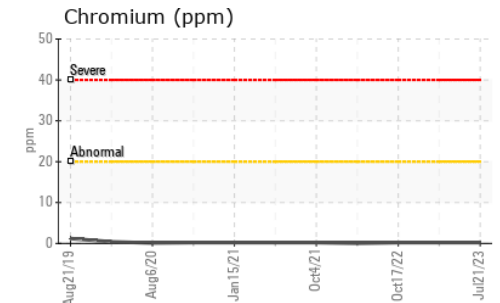
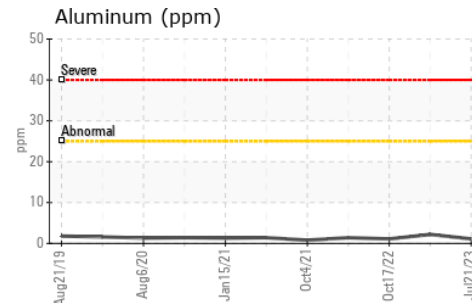
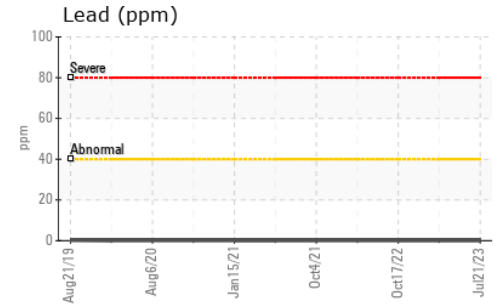
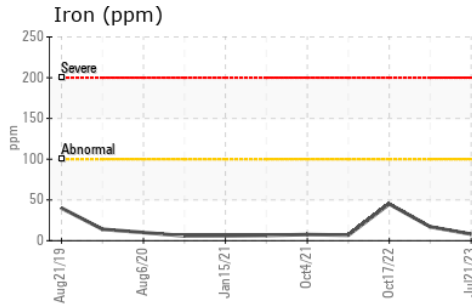
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	▲ 68.7	79.4	94.8
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	▲ 11.9	13.3	▲ 10.8
Viscosity Index (VI)	Scale	ASTM D2270*	169	170	170	97

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
Sample No. : PC0078556 **Received** : 25 Jul 2023
Lab Number : 02571856 **Diagnosed** : 26 Jul 2023
Unique Number : 5616907 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI)

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.