



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL



Area
(123456789) Coal Yard
Machine Id
LIEBHERR A312 123456-1234
Component
Diesel Engine
Fluid
PETRO CANADA DURON EXTRA 15W40 (123 GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

WEAR

All component wear rates are normal.

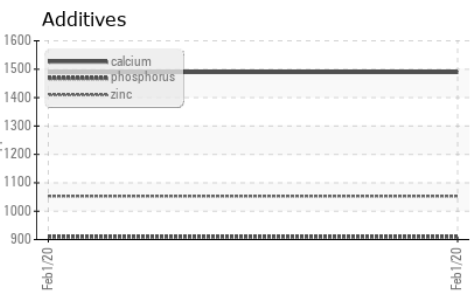
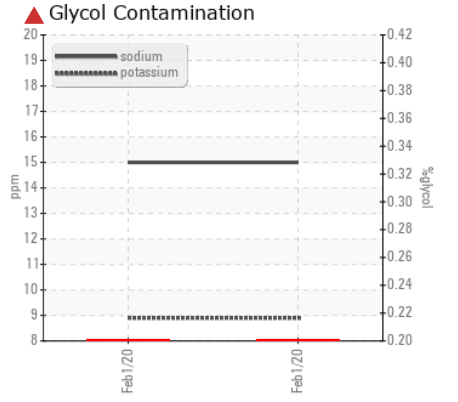
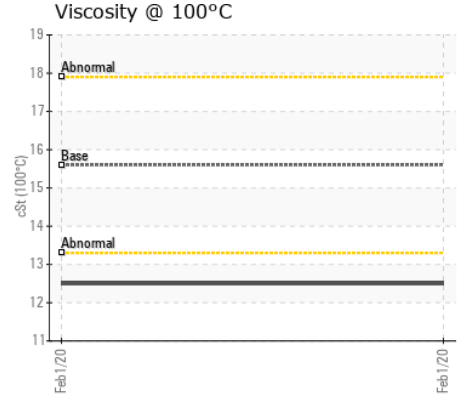
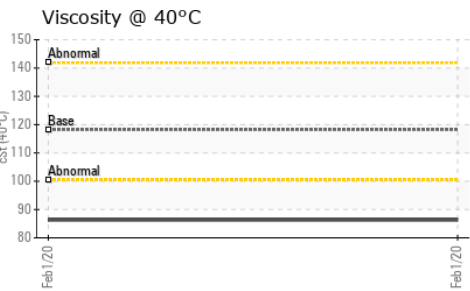
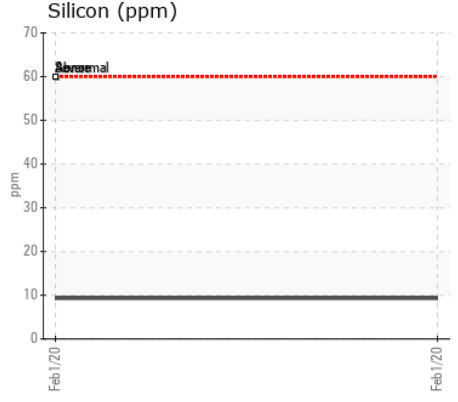
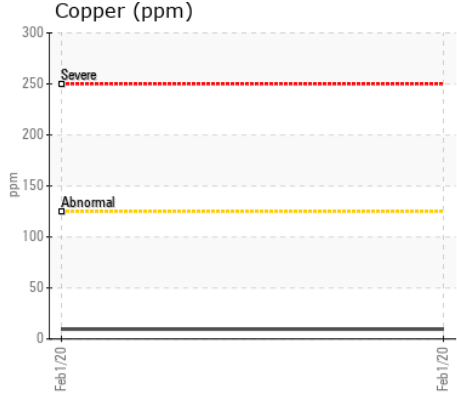
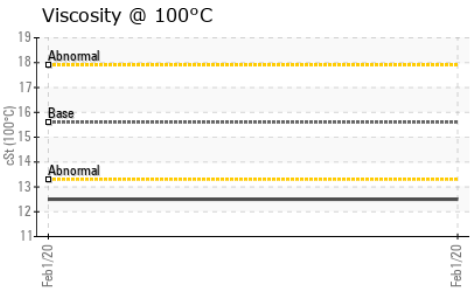
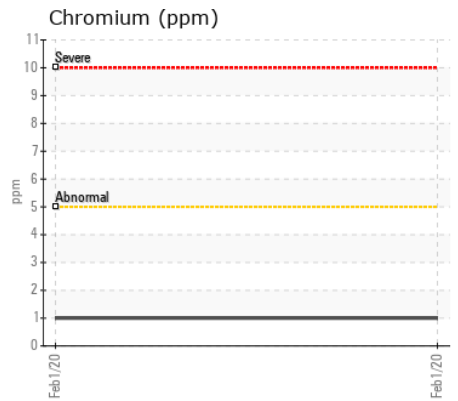
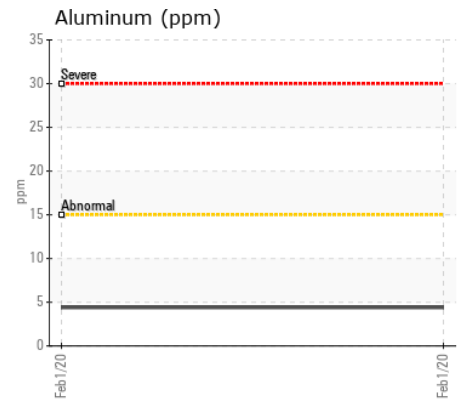
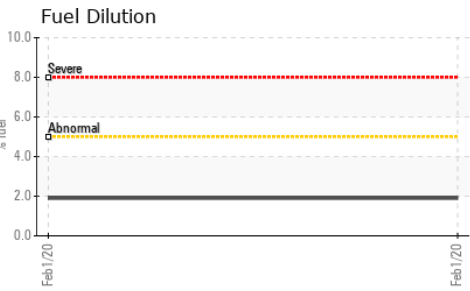
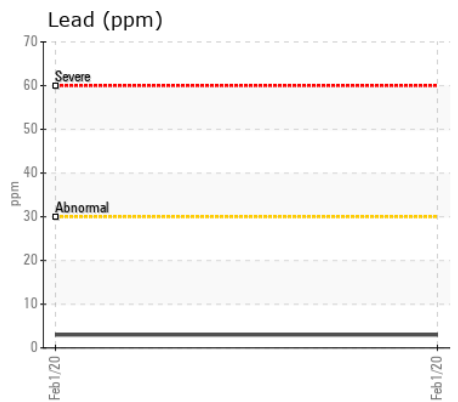
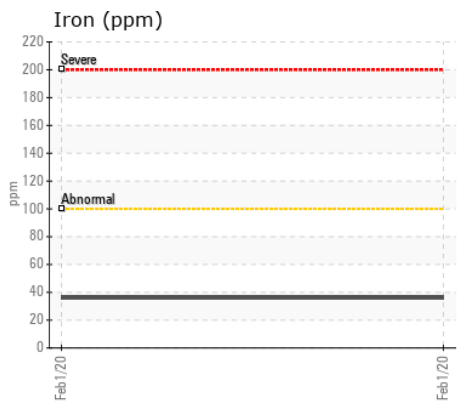
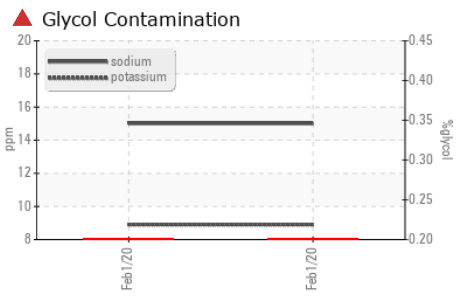
CONTAMINATION

Test for glycol is positive. Light fuel dilution occurring. There is a high concentration of glycol present in the oil. No other contaminants were detected in the oil.

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0010607	---	---
Sample Date		Client Info		01 Feb 2020	---	---
Machine Age	hrs	Client Info		18500	---	---
Oil Age	hrs	Client Info		528	---	---
Filter Age	hrs	Client Info		528	---	---
Oil Changed		Client Info		Not Chngd	---	---
Filter Changed		Client Info		Not Chngd	---	---
Sample Status				SEVERE	---	---
Iron	ppm	ASTM D5185(m)	>100	36	---	---
Chromium	ppm	ASTM D5185(m)	>5	1	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		<1	---	---
Silver	ppm	ASTM D5185(m)		0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	4	---	---
Lead	ppm	ASTM D5185(m)	>30	3	---	---
Copper	ppm	ASTM D5185(m)	>125	10	---	---
Tin	ppm	ASTM D5185(m)	>5	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Silicon	ppm	ASTM D5185(m)	>60	9	---	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 9	---	---
Fuel	%	ASTM D7593*	>5	1.9	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		▲ 0.20	---	---
Soot %	%	ASTM D7844*	>3	0.5	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.2	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)		15	---	---
Boron	ppm	ASTM D5185(m)	0	39	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	60	41	---	---
Manganese	ppm	ASTM D5185(m)	0	<1	---	---
Magnesium	ppm	ASTM D5185(m)	1010	511	---	---
Calcium	ppm	ASTM D5185(m)	1070	1489	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	910	---	---
Zinc	ppm	ASTM D5185(m)	1270	1053	---	---
Sulfur	ppm	ASTM D5185(m)	2150	3033	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	---	---
Visc @ 40°C	cSt	ASTM D7279(m)	118.2	86.3	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	12.5	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	139	141	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0010607 **Received** : 02 Feb 2020
Lab Number : 02279563 **Tested** : 16 Apr 2019
Unique Number : 4850802 **Diagnosed** : 03 Feb 2020 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, KV40, PercentFuel, VI)

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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.