



Machine Id
1786 PERCY STREET CASTLETON BELL CANADA #4502753

Component
Left Diesel Engine

Fluid
ESSO XD-3 EXTRA 15W40 (8 LTR)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PN0006103	PN0003733	PN0002116
Sample Date		Client Info		25 Apr 2024	28 Jun 2022	03 Feb 2021
Machine Age	hrs	Client Info		394	368	347
Oil Age	hrs	Client Info		0	21	0
Filter Age	hrs	Client Info		0	21	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>250	3	4	5
Chromium	ppm	ASTM D5185(m)	>10	0	0	<1
Nickel	ppm	ASTM D5185(m)	>5	0	0	<1
Titanium	ppm	ASTM D5185(m)		0	<1	0
Silver	ppm	ASTM D5185(m)	>3	0	<1	0
Aluminum	ppm	ASTM D5185(m)	>35	2	2	1
Lead	ppm	ASTM D5185(m)	>100	0	<1	1
Copper	ppm	ASTM D5185(m)	>60	4	2	4
Tin	ppm	ASTM D5185(m)	>5	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	---	NONE

CONTAMINATION

Test for glycol is positive. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil.

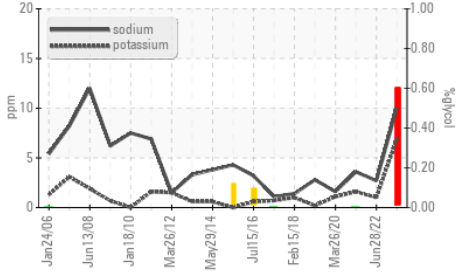
Silicon	ppm	ASTM D5185(m)	>35	4	6	5
Potassium	ppm	ASTM D5185(m)	>20	7	1	2
Fuel		WC Method	>5	<1.0	<1.0	1.3
Water	%	ASTM D6304*	>0.2	NEG	NEG	0.052
ppm Water	ppm	ASTM D6304*	>2000	---	---	527.9
Glycol	%	ASTM D7922*		0.603	NEG	0.0
Soot %	%	ASTM D7844*	>3	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	7.6	8.1	6.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	16.3	19.8	19.0
Silt	scalar	Visual*	NONE	NONE	---	NONE
Debris	scalar	Visual*	NONE	NONE	---	VLITE
Sand/Dirt	scalar	Visual*	NONE	NONE	---	NONE
Appearance	scalar	Visual*	NORML	WGOIL	---	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	.5%	NEG	.2%

FLUID CONDITION

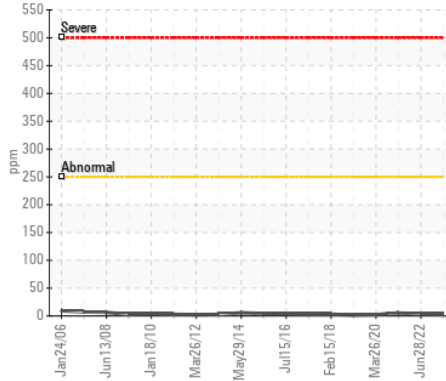
The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>192	10	3	4
Boron	ppm	ASTM D5185(m)		54	65	27
Barium	ppm	ASTM D5185(m)		<1	<1	1
Molybdenum	ppm	ASTM D5185(m)		30	77	36
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)		204	97	494
Calcium	ppm	ASTM D5185(m)	3780	1947	2201	1691
Phosphorus	ppm	ASTM D5185(m)	1370	966	979	823
Zinc	ppm	ASTM D5185(m)	1500	1113	1128	1016
Sulfur	ppm	ASTM D5185(m)	3800	3004	3253	2699
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.6	14.3	16.3
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.6	14.1	12.8

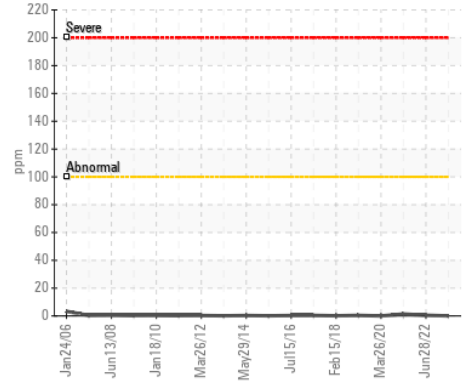
▲ Glycol Contamination



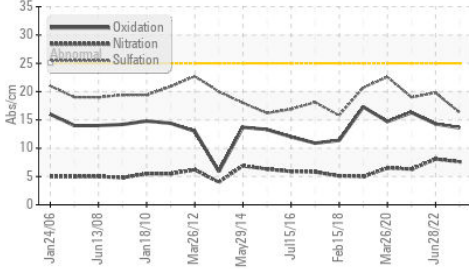
Iron (ppm)



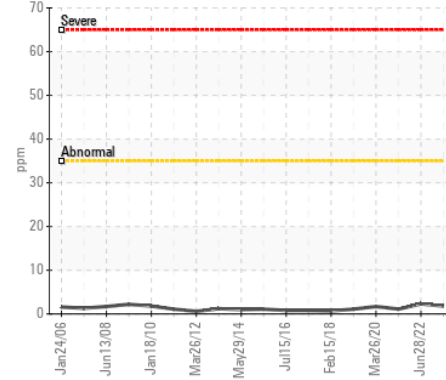
Lead (ppm)



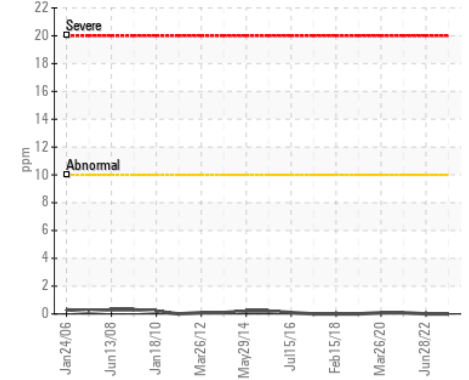
FT-IR (Direct Trend)



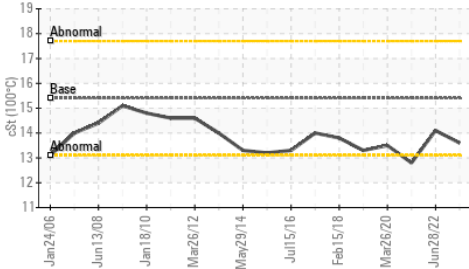
Aluminum (ppm)



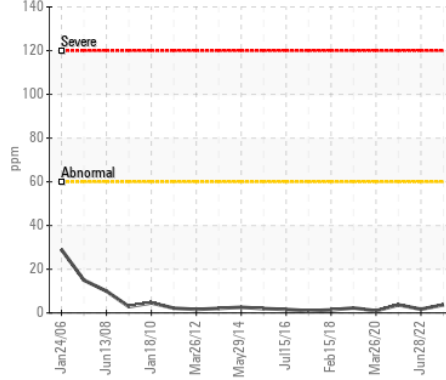
Chromium (ppm)



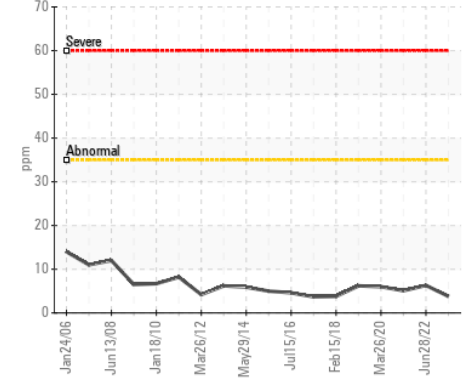
Viscosity @ 100°C



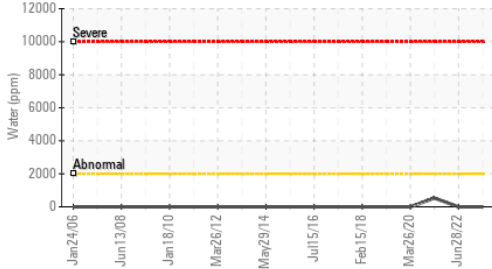
Copper (ppm)



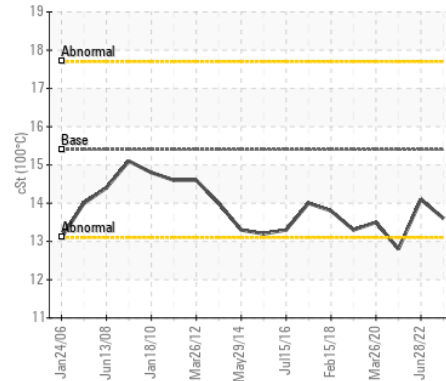
Silicon (ppm)



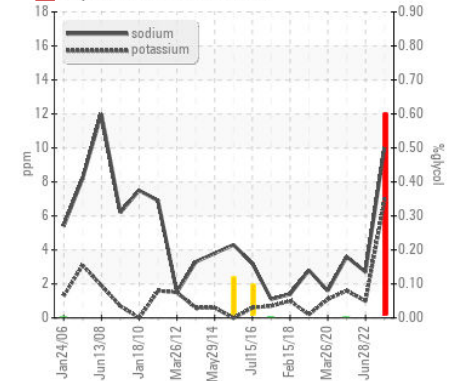
Water (KF)



Viscosity @ 100°C



▲ Glycol Contamination



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PN0006103
Lab Number : 02631492
Unique Number : 5772645
Test Package : MOB 1 (Additional Tests: Glycol, KF, Visual)

Received : 26 Apr 2024
Tested : 26 Apr 2024
Diagnosed : 29 Apr 2024 - Kevin Marson

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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.