MOB I

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area
[119072]
Machine Id
46795671
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Check for low coolant level. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

WEAR

Iron ppm levels are abnormal. Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

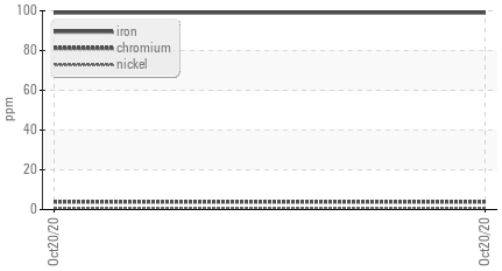
Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative.

FLUID CONDITION

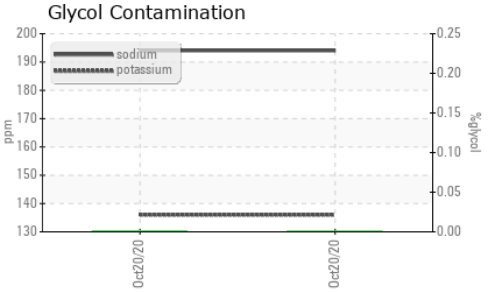
The oil is no longer serviceable as a result of the abnormal and/or severe wear. The condition of the oil is acceptable for the time in service (see recommendation).

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0016995	---	---
Sample Date		Client Info		20 Oct 2020	---	---
Machine Age	kms	Client Info		429216	---	---
Oil Age	kms	Client Info		0	---	---
Filter Age	kms	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---
PQ		ASTM D8184*		24	---	---
Iron	ppm	ASTM D5185(m)	>75	▲ 99	---	---
Chromium	ppm	ASTM D5185(m)	>5	4	---	---
Nickel	ppm	ASTM D5185(m)	>4	<1	---	---
Titanium	ppm	ASTM D5185(m)		2	---	---
Silver	ppm	ASTM D5185(m)		<1	---	---
Aluminum	ppm	ASTM D5185(m)	>15	9	---	---
Lead	ppm	ASTM D5185(m)	>25	3	---	---
Copper	ppm	ASTM D5185(m)	>100	2	---	---
Tin	ppm	ASTM D5185(m)	>4	<1	---	---
Vanadium	ppm	ASTM D5185(m)		<1	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Silicon	ppm	ASTM D5185(m)	>25	11	---	---
Potassium	ppm	ASTM D5185(m)	>20	▲ 136	---	---
Fuel		WC Method	>3.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*	>6	0.4	---	---
Nitration	Abs/cm	ASTM D7624*	>20	9.7	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185(m)	>216	▲ 194	---	---
Boron	ppm	ASTM D5185(m)	250	61	---	---
Barium	ppm	ASTM D5185(m)	10	0	---	---
Molybdenum	ppm	ASTM D5185(m)	100	74	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)	450	206	---	---
Calcium	ppm	ASTM D5185(m)	3000	1816	---	---
Phosphorus	ppm	ASTM D5185(m)	1150	909	---	---
Zinc	ppm	ASTM D5185(m)	1350	1070	---	---
Sulfur	ppm	ASTM D5185(m)	4250	2860	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.7	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.5	---	---

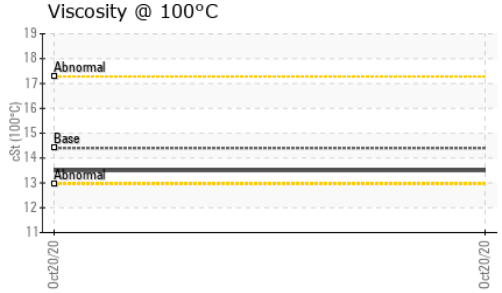
Ferrous Alloys



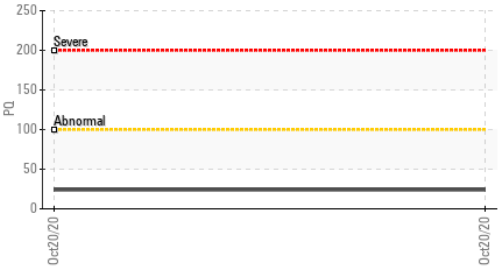
Glycol Contamination



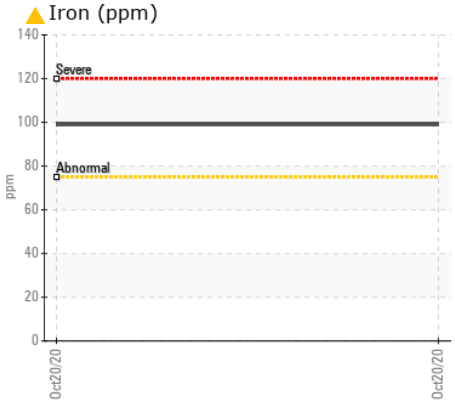
Viscosity @ 100°C



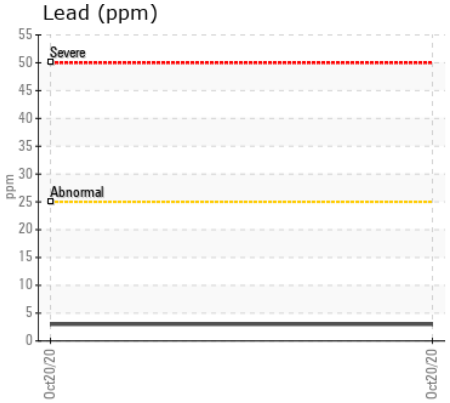
PQ



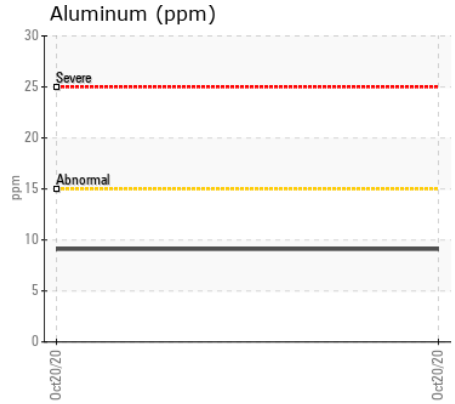
Iron (ppm)



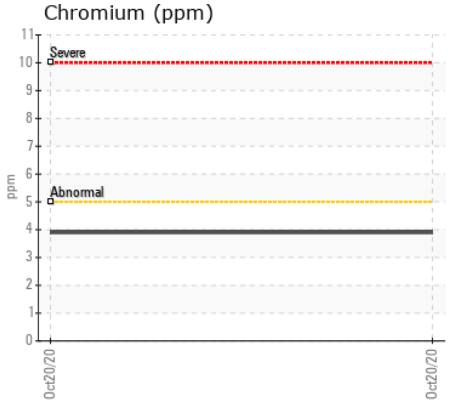
Lead (ppm)



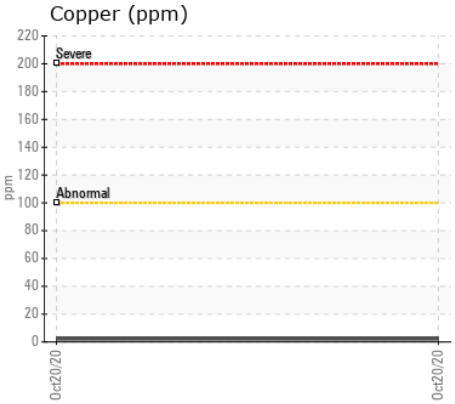
Aluminum (ppm)



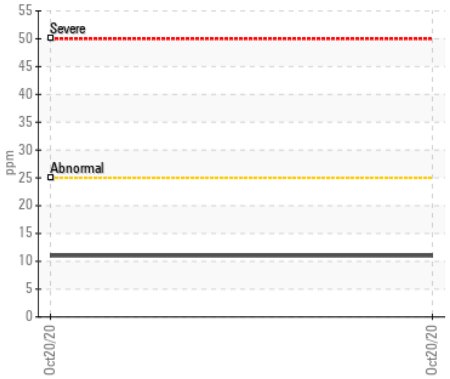
Chromium (ppm)



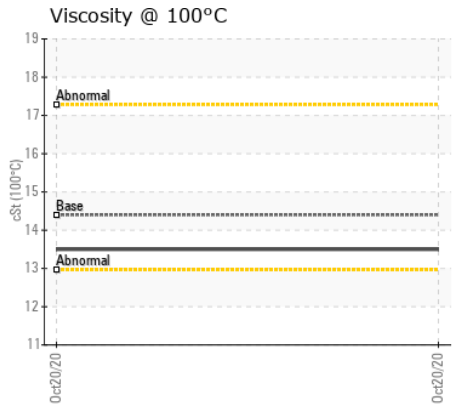
Copper (ppm)



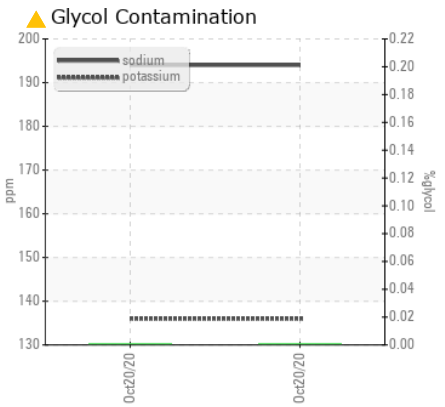
Silicon (ppm)



Viscosity @ 100°C



Glycol Contamination



ISO 17025:2017 Accredited Laboratory

Laboratory	: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9		
Sample No.	: CU0016995	**Recieved**	: 22 Oct 2020
Lab Number	: 02382898	**Diagnosed**	: 23 Oct 2020
Unique Number	: 5122352	**Diagnostician**	: Kevin Marson
Test Package	: MOB 1 (Additional Tests: Glycol, PQ, Visual)		

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.

CUMMINS EASTERN CANADA LP
6950 EDWARDS BLVD
MISSISSAUGA, ON
CA L5T 2W2
Contact: Jeffrey Moore
jeffrey.moore@cummins.com
T: (905)795-0050
F: (905)795-0035