



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

LLUNLLAR [156463]

Machine Id

45488552

Component

Diesel Engine

Fluid

VALVOLINE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		CU0023747	CU0019978	CU0014363
Sample Date		Client Info		15 May 2024	30 May 2023	10 Jun 2019
Machine Age	hrs	Client Info		458	423	398
Oil Age	hrs	Client Info		35	4	12
Filter Age	hrs	Client Info		35	4	12
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>90	2	2	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>40	0	0	<1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

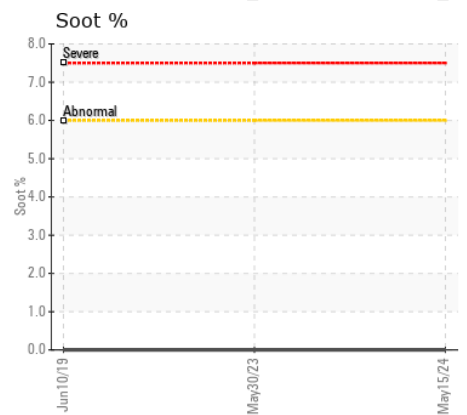
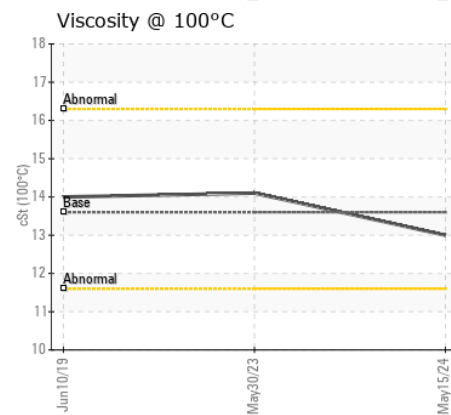
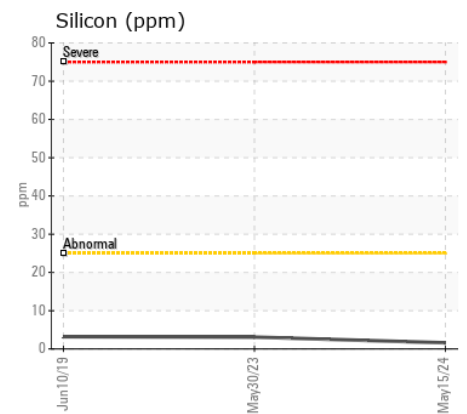
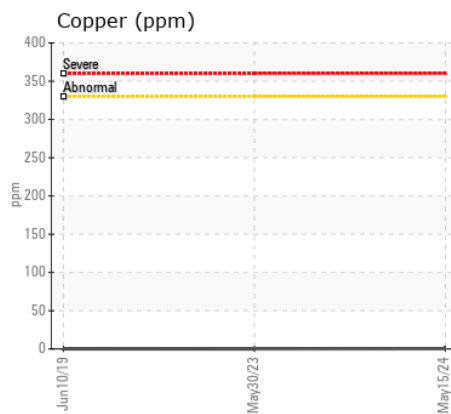
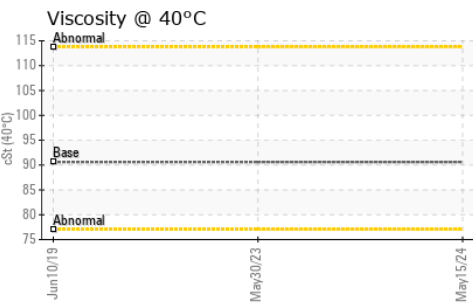
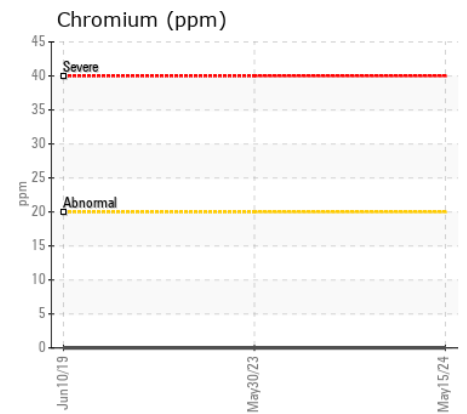
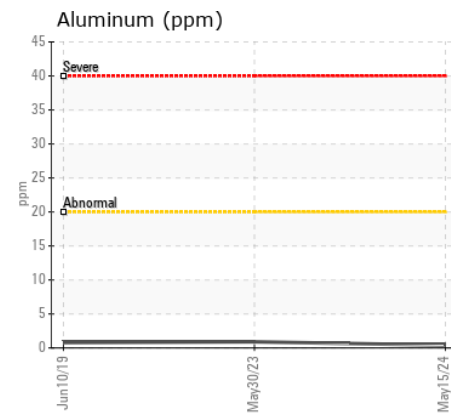
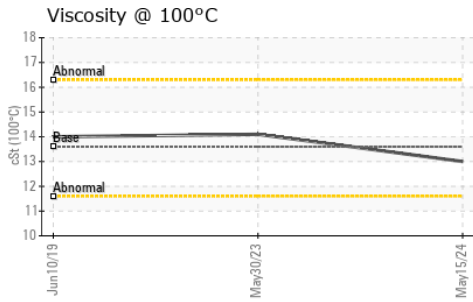
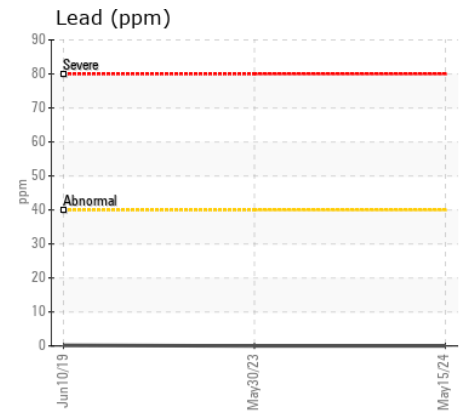
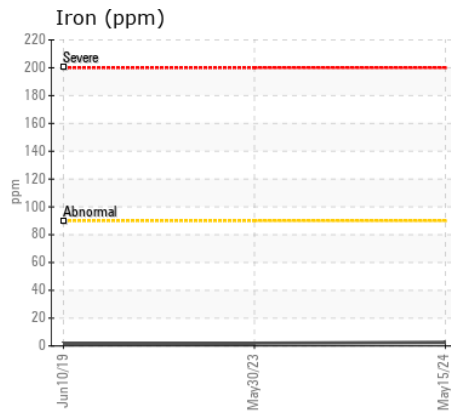
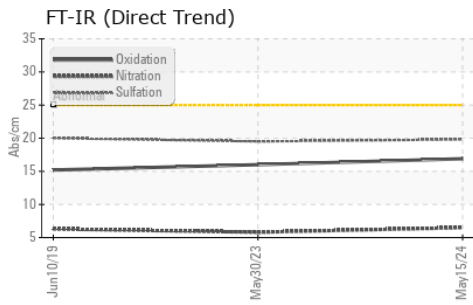
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.5	5.8	6.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.8	19.5	20.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	3	4
Boron	ppm	ASTM D5185(m)	39	41	59	55
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	49	44	43	43
Manganese	ppm	ASTM D5185(m)	1	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	616	712	576	583
Calcium	ppm	ASTM D5185(m)	1554	1214	1477	1377
Phosphorus	ppm	ASTM D5185(m)	899	744	1000	937
Zinc	ppm	ASTM D5185(m)	1069	849	1076	1119
Sulfur	ppm	ASTM D5185(m)	2624	2065	2460	2547
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.9	16.0	15.2
Visc @ 40°C	cSt	ASTM D7279(m)	90.6	93.5	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	13.0	14.1	14.0
Viscosity Index (VI)	Scale	ASTM D2270*	136	137	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0023747
Lab Number : 02640830
Unique Number : 5789992
Test Package : MOB 1 (Additional Tests: KV40, VI)
Received : 10 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 10 Jun 2024 - Wes Davis

CUMMINS CANADA ULC - GENERATOR DIVISION
 7175 PACIFIC CIRCLE
 MISSISSAUGA, ON
 CA L5T 2A5
 Contact: Elisia Johnson
 elisia.johnson@cummins.com
 T: (905)795-0050
 F: (905)795-9252

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.