



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
WOODBINE CASINO [150915]
Machine Id
UNIT #1 (S/N 33143888)
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		CU0023231	CU0018495	CU0017658
Sample Date		Client Info		08 Apr 2024	16 Sep 2021	03 May 2021
Machine Age	hrs	Client Info		0	176	145
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>90	3	2	3
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>2	0	0	0
Titanium	ppm	ASTM D5185(m)	>2	0	<1	<1
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>40	<1	1	<1
Copper	ppm	ASTM D5185(m)	>330	1	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

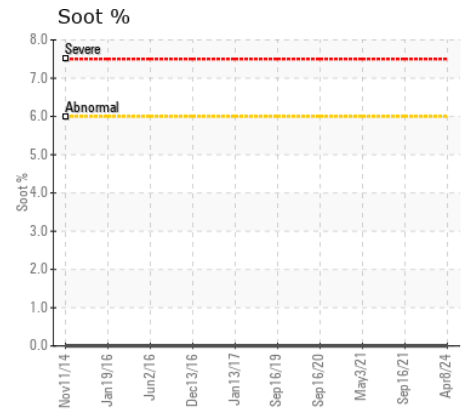
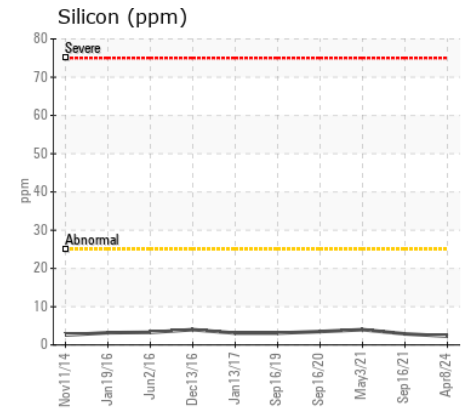
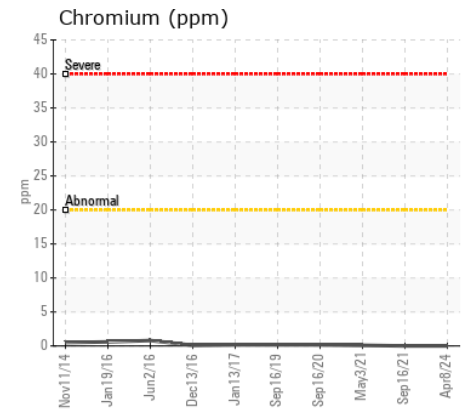
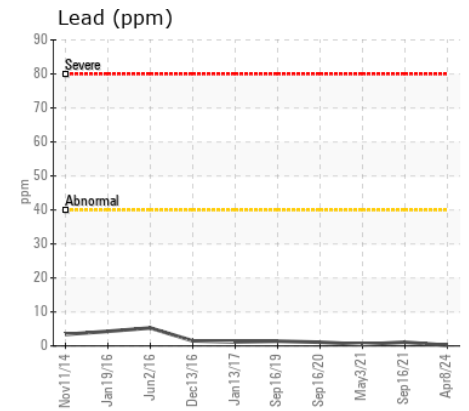
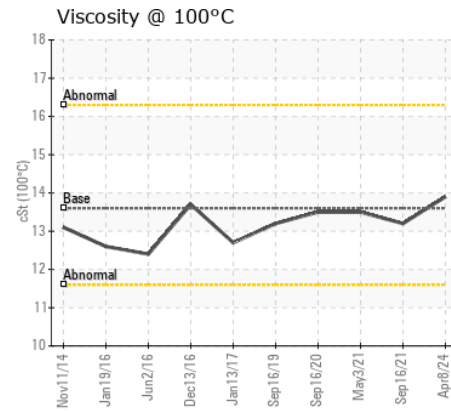
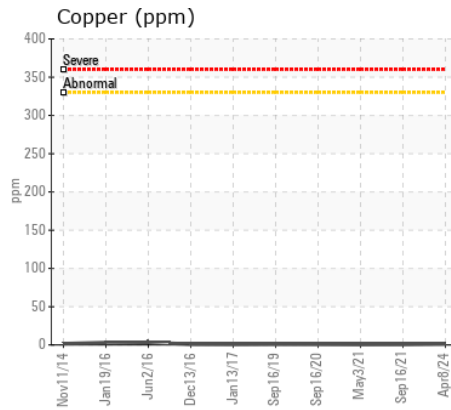
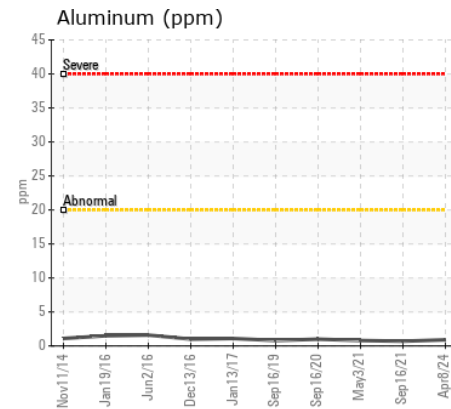
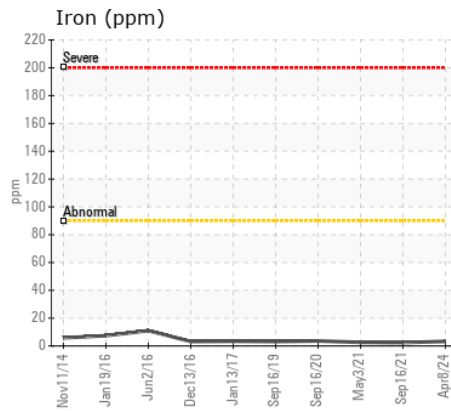
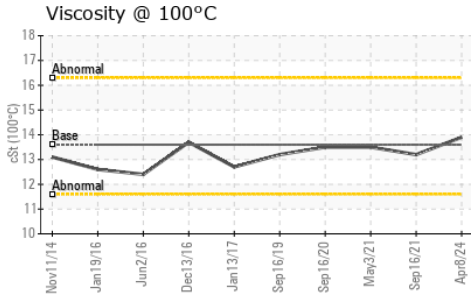
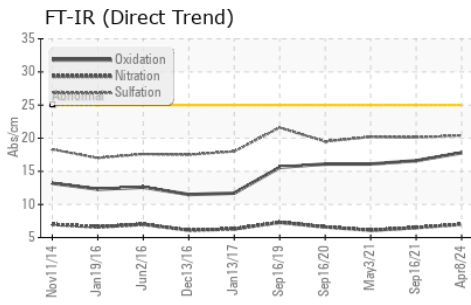
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	2	3	4
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<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	7.0	6.5	6.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	20.1	20.2
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)		3	4	4
Boron	ppm	ASTM D5185(m)	39	41	62	66
Barium	ppm	ASTM D5185(m)	1	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	49	49	40	40
Manganese	ppm	ASTM D5185(m)	1	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	616	821	627	604
Calcium	ppm	ASTM D5185(m)	1554	1220	1417	1456
Phosphorus	ppm	ASTM D5185(m)	899	734	1073	991
Zinc	ppm	ASTM D5185(m)	1069	847	1170	1202
Sulfur	ppm	ASTM D5185(m)	2624	1979	2624	2691
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.8	16.6	16.1
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	13.9	13.2	13.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0023231
Lab Number : 02631871
Unique Number : 5773024
Test Package : MOB 1
Received : 29 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Wes Davis

CUMMINS CANADA ULC - GENERATOR DIVISION
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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.