



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
ESTRUXTURE [154146]
 Machine Id
25399016 GEN 9
 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		CU0023287	CU0019940	CU0019942
Sample Date		Client Info		18 Mar 2024	21 Nov 2022	21 Nov 2022
Machine Age	hrs	Client Info		188	189	189
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Chngd	Changed	Changed
Filter Changed		Client Info		Not Chngd	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	<1	<1
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	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

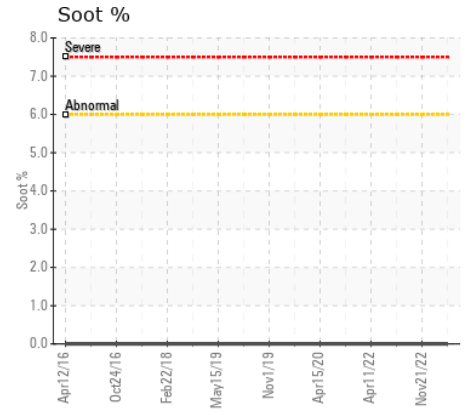
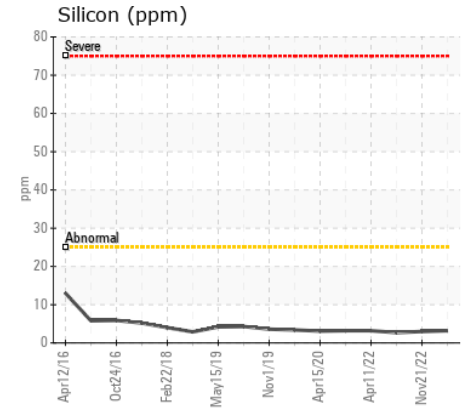
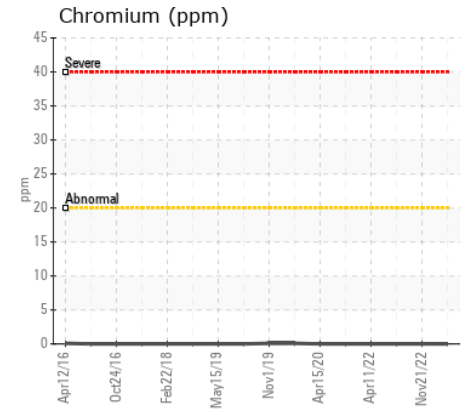
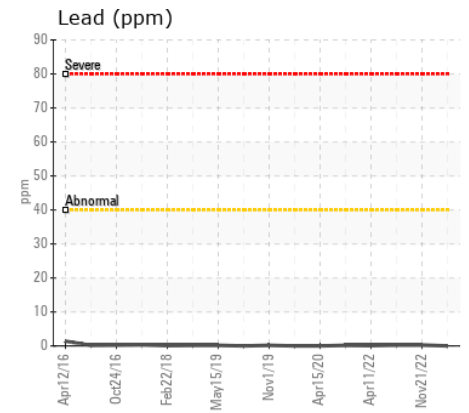
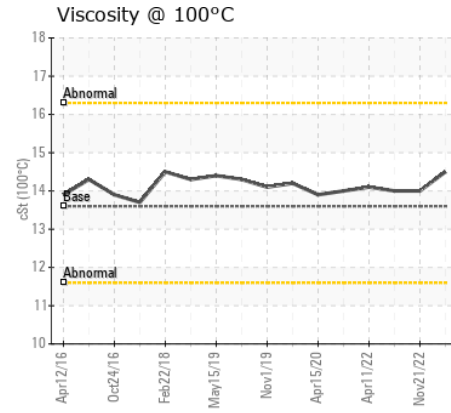
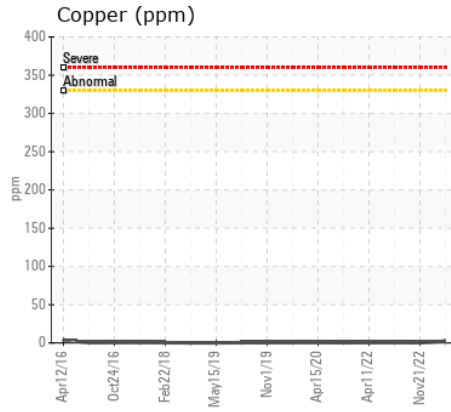
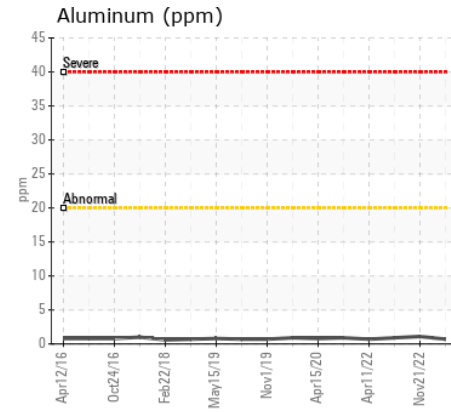
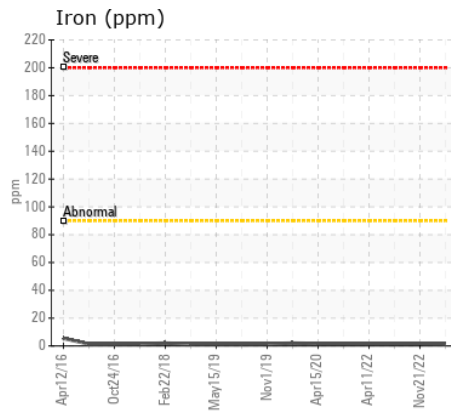
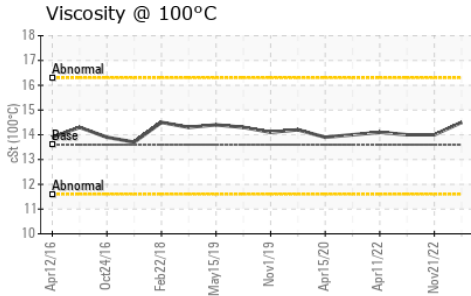
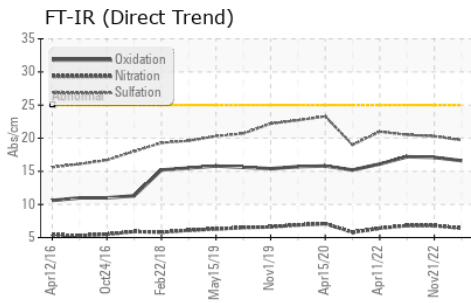
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0
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	6.4	6.8	6.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.7	20.3	20.5
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
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	63
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	49	45	39	39
Manganese	ppm	ASTM D5185(m)	1	0	<1	<1
Magnesium	ppm	ASTM D5185(m)	616	774	586	594
Calcium	ppm	ASTM D5185(m)	1554	1180	1552	1543
Phosphorus	ppm	ASTM D5185(m)	899	724	1081	1080
Zinc	ppm	ASTM D5185(m)	1069	836	1171	1179
Sulfur	ppm	ASTM D5185(m)	2624	1975	2716	2702
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.6	17.1	17.2
Visc @ 100°C	cSt	ASTM D7279(m)	13.6	14.5	14.0	14.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : CU0023287
Lab Number : 02631849
Unique Number : 5773002
Test Package : MOB 1 (Additional Tests: Visual)

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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.