

Machine Id
351040
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0078312	PC	PC0078051
Sample Date		Client Info		15 Feb 2024	09 Jan 2024	17 Aug 2023
Machine Age	kms	Client Info		42414	0	197444
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	12	4	10
Chromium	ppm	ASTM D5185(m)	>20	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	3
Lead	ppm	ASTM D5185(m)	>40	0	0	0
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

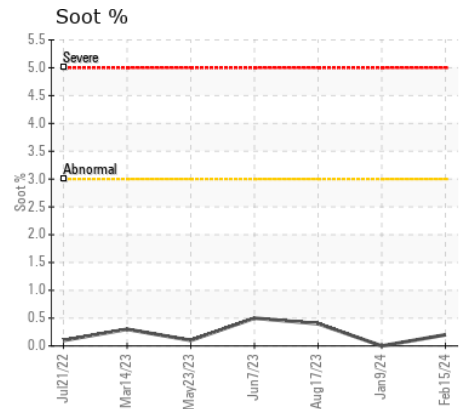
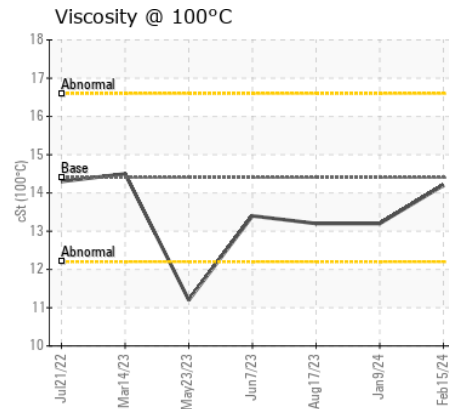
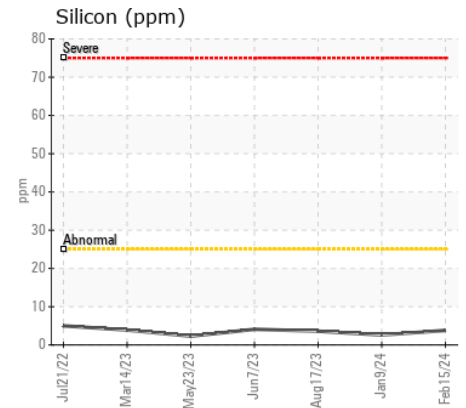
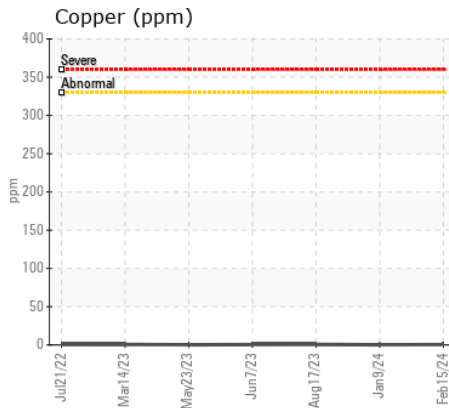
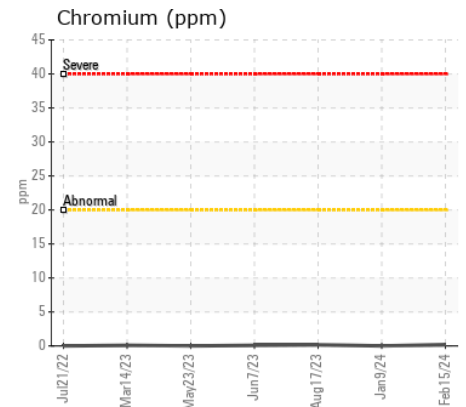
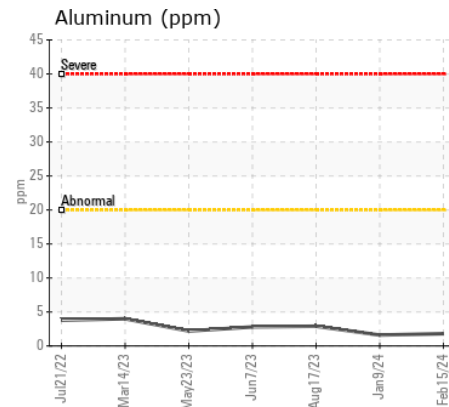
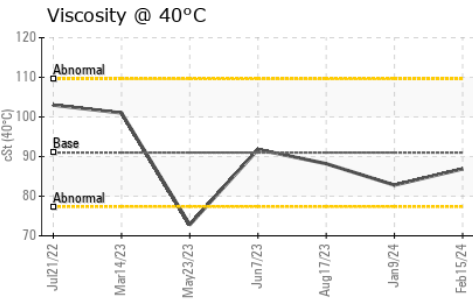
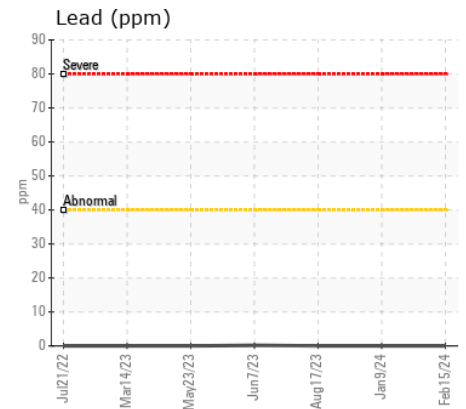
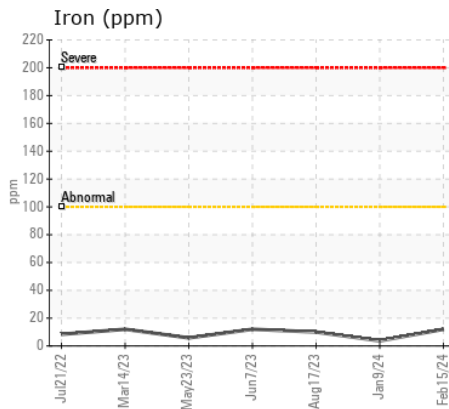
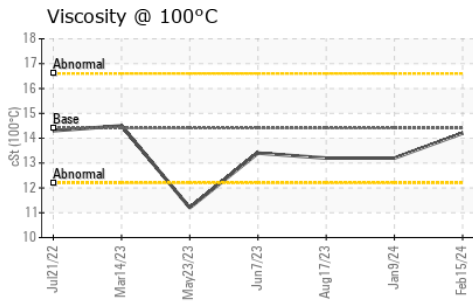
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	3	4
Potassium	ppm	ASTM D5185(m)	>20	1	<1	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0	0.4
Nitration	Abs/cm	ASTM D7624*	>20	10.2	6.8	11.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	19.5	22.8
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)	>44	5	3	4
Boron	ppm	ASTM D5185(m)	250	35	42	38
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	56	56	66
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	450	1087	1052	20
Calcium	ppm	ASTM D5185(m)	3000	828	831	1951
Phosphorus	ppm	ASTM D5185(m)	1150	1020	969	922
Zinc	ppm	ASTM D5185(m)	1350	1174	1144	1064
Sulfur	ppm	ASTM D5185(m)	4250	2923	2731	3917
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.0	17.2	21.7
Visc @ 40°C	cSt	ASTM D7279(m)	91	86.9	82.8	88.2
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	14.2	13.2	13.2
Viscosity Index (VI)	Scale	ASTM D2270*	164	169	161	150



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0078312
Lab Number : 02617397
Unique Number : 5734507
Test Package : MOB 1 (Additional Tests: KV40, VI)
Received : 22 Feb 2024
Tested : 22 Feb 2024
Diagnosed : 22 Feb 2024 - Wes Davis

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations
 151 Ram Forest Rd,
 Stouffville, ON
 CA L4A 2G8
 Contact: Bill Acton
 bacton@gipi.com

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.