



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINANTS	NORMAL
OIL CONDITION	NORMAL

Machine Id
MCI B5605
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- GAL)

RECOMMENDATION

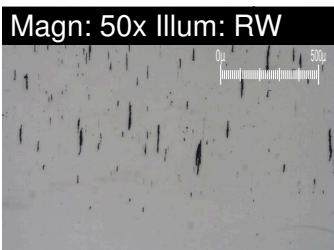
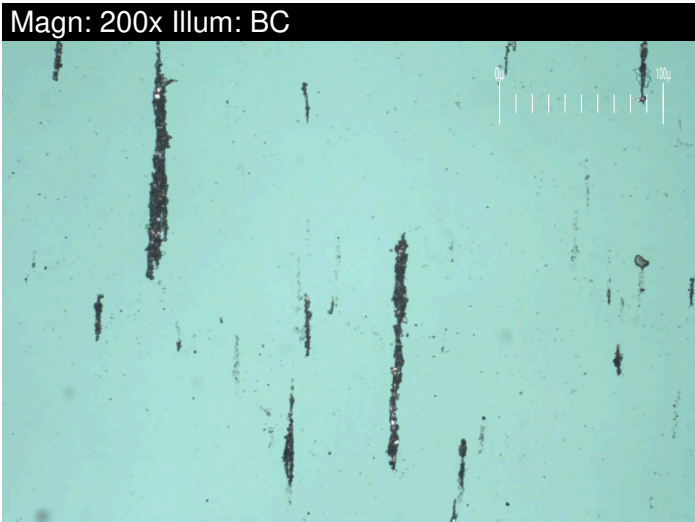
Resample at the next service interval to monitor.

WEAR

All component wear rates are normal. The ferrography results are normal indicating no abnormal wear in the system.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0916706	WC0916698	WC0308090
Sample Date		Client Info		05 Jun 2024	18 Apr 2024	06 Feb 2019
Machine Age	kms	Client Info		770591	745352	149891
Oil Age	kms	Client Info		0	0	0
Filter Age	kms	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

PQ		ASTM D8184*		0	0	---
Iron	ppm	ASTM D5185(m)	>100	15	12	20
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	2
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	2	2
Lead	ppm	ASTM D5185(m)	>40	<1	0	1
Copper	ppm	ASTM D5185(m)	>330	<1	<1	22
Tin	ppm	ASTM D5185(m)	>15	0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	VLITE	---
Large Particles		DR-Ferr*		5.0	7.1	---
Small Particles		DR-Ferr*		2.7	3.9	---
Total Particles		DR-Ferr*	>---	7.7	11	---
Large Particles Percentage	%	DR-Ferr*		29.9	29.1	---
Severity Index		DR-Ferr*		12	23	---
Ferrous Rubbing	Scale 0-10	ASTM D7684*		3	2	
Ferrous Sliding	Scale 0-10	ASTM D7684*				
Ferrous Cutting	Scale 0-10	ASTM D7684*				
Ferrous Rolling	Scale 0-10	ASTM D7684*		1	1	
Ferrous Break-in	Scale 0-10	ASTM D7684*				
Ferrous Spheres	Scale 0-10	ASTM D7684*				
Ferrous Black Oxides	Scale 0-10	ASTM D7684*		1	1	
Ferrous Red Oxides	Scale 0-10	ASTM D7684*				
Ferrous Corrosive	Scale 0-10	ASTM D7684*				
Ferrous Other	Scale 0-10	ASTM D7684*				
Nonferrous Rubbing	Scale 0-10	ASTM D7684*				
Nonferrous Sliding	Scale 0-10	ASTM D7684*				
Nonferrous Cutting	Scale 0-10	ASTM D7684*				
Nonferrous Rolling	Scale 0-10	ASTM D7684*				
Nonferrous Other	Scale 0-10	ASTM D7684*				



CONTAMINANTS

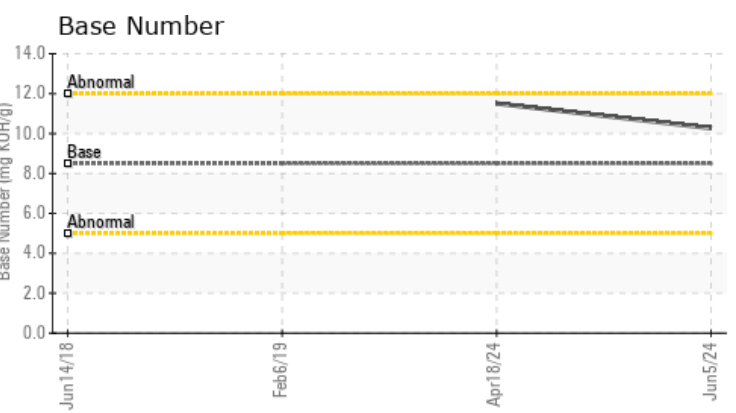
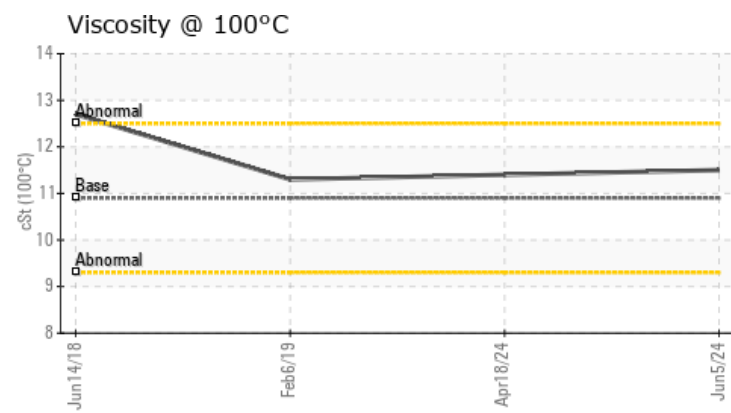
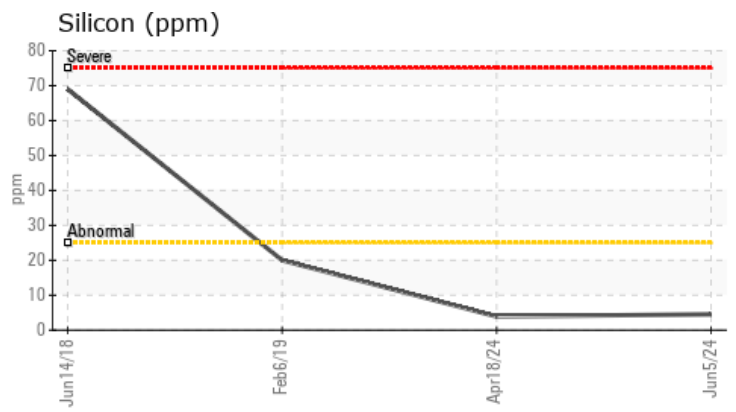
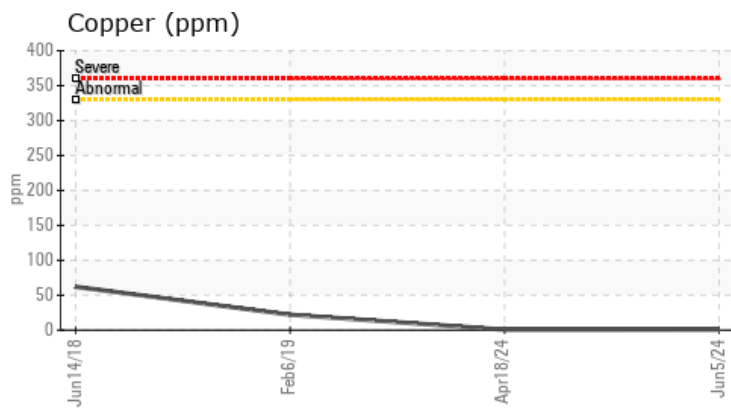
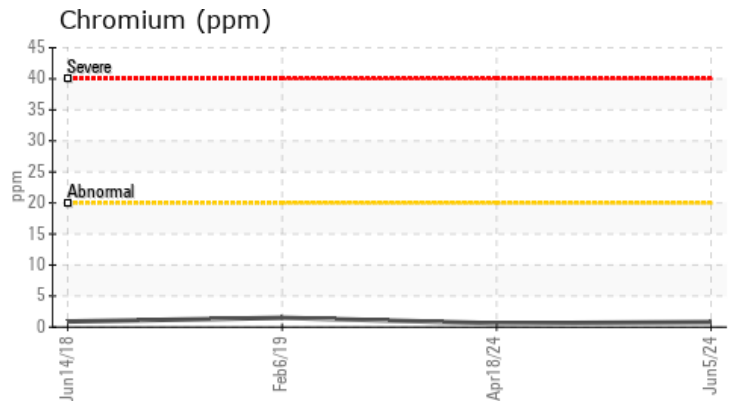
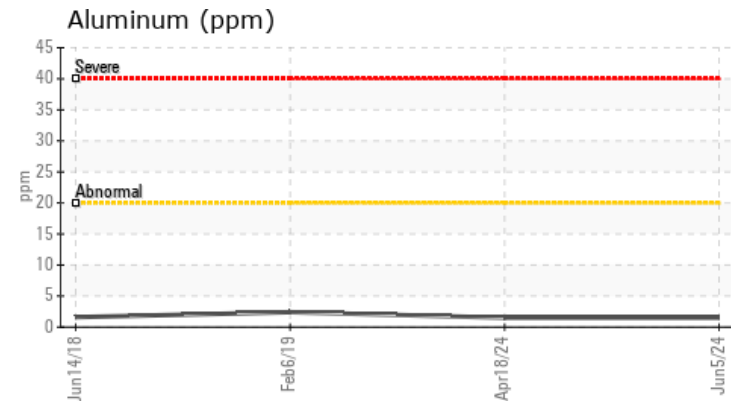
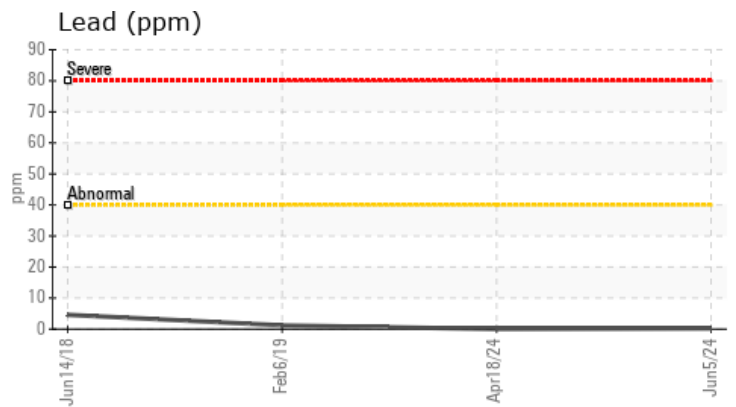
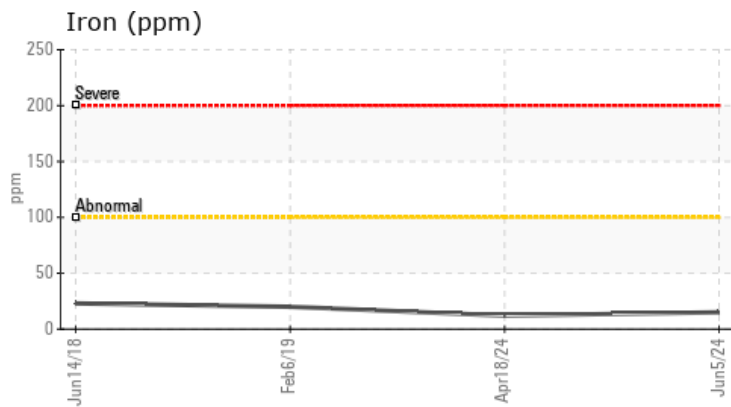
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	4	20
Potassium	ppm	ASTM D5185(m)	>20	1	3	2
Fuel		WC Method	>5	<1.0	<1.0	0.2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.2	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	9.2	9.0	8.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.3	20.5	20.3
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Carbonaceous Material	Scale 0-10	ASTM D7684*				
Sand/Dirt	Scale 0-10	ASTM D7684*		1	1	
Fibres	Scale 0-10	ASTM D7684*				
Spheres	Scale 0-10	ASTM D7684*				
Other	Scale 0-10	ASTM D7684*		1	1	

OIL CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	250	1	1	14
Barium	ppm	ASTM D5185(m)	10	0	0	0
Molybdenum	ppm	ASTM D5185(m)	100	0	0	12
Manganese	ppm	ASTM D5185(m)		<1	0	<1
Magnesium	ppm	ASTM D5185(m)	450	13	13	170
Calcium	ppm	ASTM D5185(m)	3000	2978	3115	2378
Phosphorus	ppm	ASTM D5185(m)	1150	1097	1104	892
Zinc	ppm	ASTM D5185(m)	1350	1321	1339	1082
Sulfur	ppm	ASTM D5185(m)	4250	3770	3709	2903
Oxidation	Abs/.1mm	ASTM D7414*	>25	13.4	13.2	12.9
Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	10.27	11.51	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.5	11.4	11.3
Lubricant Degradation	Scale 0-10	ASTM D7684*				



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0916706
Lab Number : 02645816
Unique Number : 5803355
Test Package : MOB 3
Received : 05 Jul 2024
Tested : 08 Jul 2024
Diagnosed : 09 Jul 2024 - Kevin Marson

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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.

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