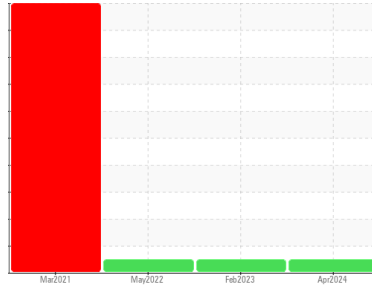




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
GM Seattle Off Road Shop
 Machine Id
[GM Seattle Off Road Shop] 24-151
 Component
Diesel Engine
 Fluid
CASTROL CRB Multi 15W-40 CK-4 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PE0003082	PE0001036	PE12230633
Sample Date	Client Info			22 Apr 2024	13 Feb 2023	24 May 2022
Machine Age	hrs	Client Info		1718	1013	689
Oil Age	hrs	Client Info		705	422	267
Oil Changed	Client Info			Changed	Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	37	39	15
Chromium	ppm	ASTM D5185m	>20	<1	1	1
Nickel	ppm	ASTM D5185m	>4	0	0	1
Titanium	ppm	ASTM D5185m		0	0	1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	4	4	2
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>330	2	4	3
Tin	ppm	ASTM D5185m	>15	0	<1	0
Antimony	ppm	ASTM D5185m		---	---	1
Vanadium	ppm	ASTM D5185m		<1	0	1
Cadmium	ppm	ASTM D5185m		0	0	---

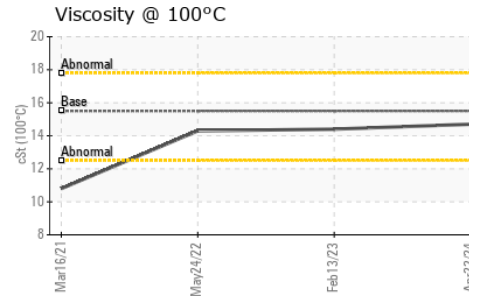
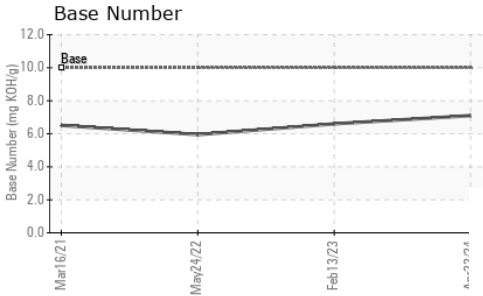
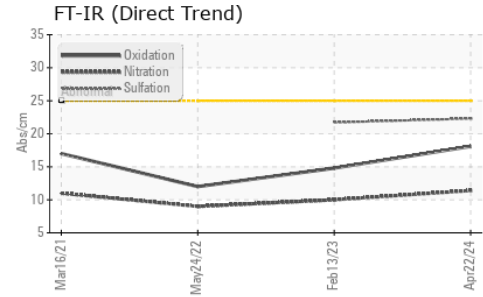
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		25	8	15
Barium	ppm	ASTM D5185m		0	0	1
Molybdenum	ppm	ASTM D5185m		38	17	15
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		595	69	65
Calcium	ppm	ASTM D5185m		2008	2404	2128
Phosphorus	ppm	ASTM D5185m		1063	874	841
Zinc	ppm	ASTM D5185m		1359	1109	1001
Sulfur	ppm	ASTM D5185m		4036	3600	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	9	7
Sodium	ppm	ASTM D5185m		1	2	1
Potassium	ppm	ASTM D5185m	>20	2	20	17

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.7	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.4	10.0	9
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.3	21.7	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	14.8	12
Base Number (BN)	mg KOH/g	ASTM D2896	10	7.1	6.6	5.95

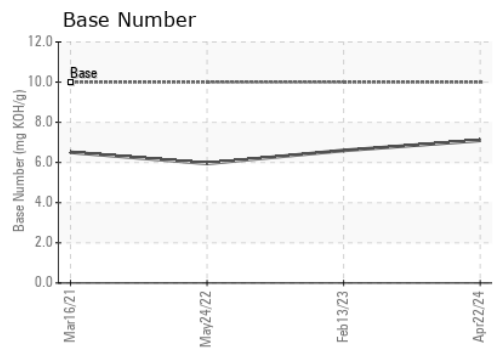
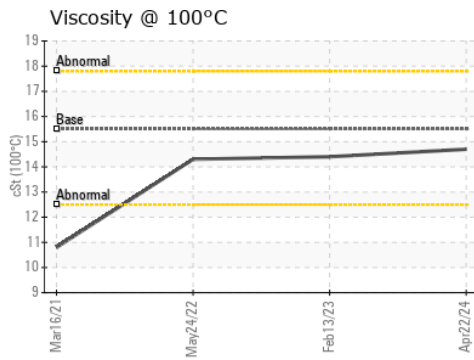
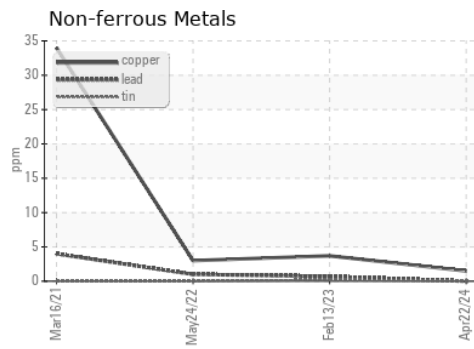
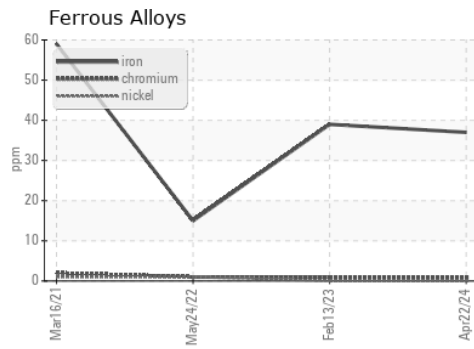
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
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	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.5	14.7	14.4

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003082 **Received** : 14 Jun 2024
Lab Number : 06211070 **Tested** : 18 Jun 2024
Unique Number : 11083934 **Diagnosed** : 18 Jun 2024 - Angela Borella
Test Package : CONST (Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN)

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 SEATTLE, WA
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 F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)