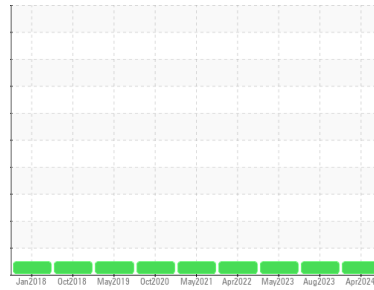




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
GM Seattle Off Raod Shop
 Machine Id
[GM Seattle Off Raod Shop] 24-740
 Component
Diesel Engine
 Fluid
SHELL 15W40 (--- 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		PE0003074	PE0002305	PE0001775
Sample Date	Client Info		05 Apr 2024	03 Aug 2023	30 May 2023
Machine Age	hrs	Client Info	5556	5185	5100
Oil Age	hrs	Client Info	371	581	478
Oil Changed	Client Info		Changed	Changed	Oil Added
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	21	21	15
Chromium	ppm	ASTM D5185m >20	1	<1	<1
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >3	<1	0	0
Aluminum	ppm	ASTM D5185m >20	5	2	2
Lead	ppm	ASTM D5185m >40	11	1	1
Copper	ppm	ASTM D5185m >330	2	3	2
Tin	ppm	ASTM D5185m >15	3	1	<1
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	69	32	34
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	41	24	22
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	88	374	362
Calcium	ppm	ASTM D5185m	2044	2159	2121
Phosphorus	ppm	ASTM D5185m	1076	1029	986
Zinc	ppm	ASTM D5185m	1185	1238	1231
Sulfur	ppm	ASTM D5185m	3919	4459	4507

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	12	13	11
Sodium	ppm	ASTM D5185m >150	<1	1	<1
Potassium	ppm	ASTM D5185m >20	5	<1	2

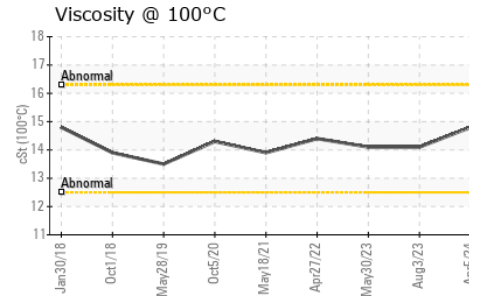
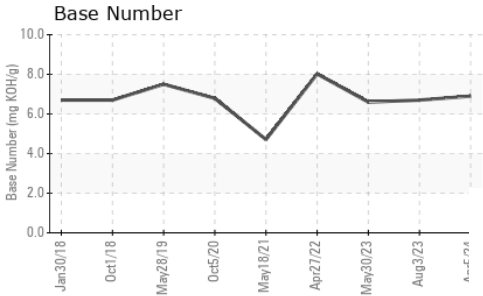
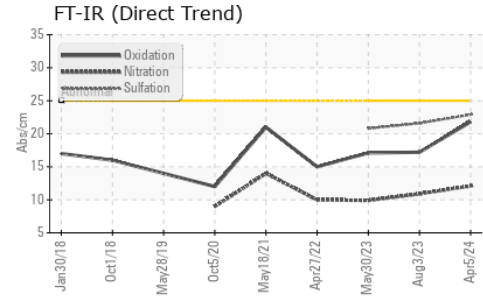
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.8	0.6	0.4
Nitration	Abs/cm	*ASTM D7624 >20	12.1	10.9	9.9
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.9	21.6	20.8

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	21.8	17.2	17.1
Base Number (BN)	mg KOH/g	ASTM D2896	6.9	6.7	6.6

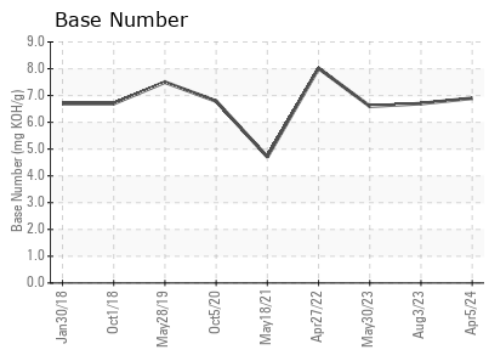
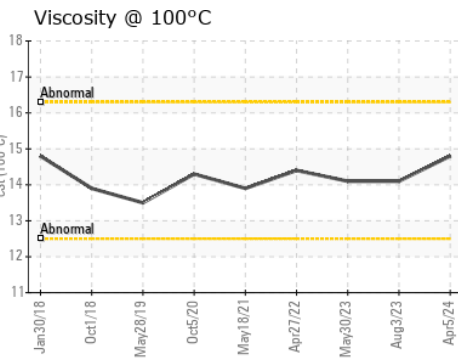
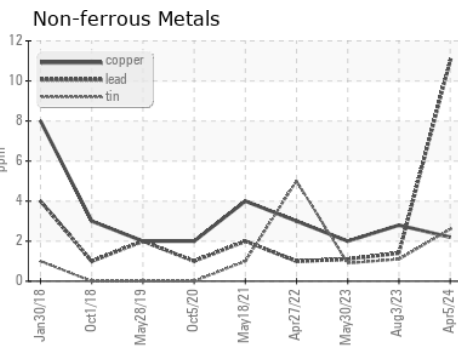
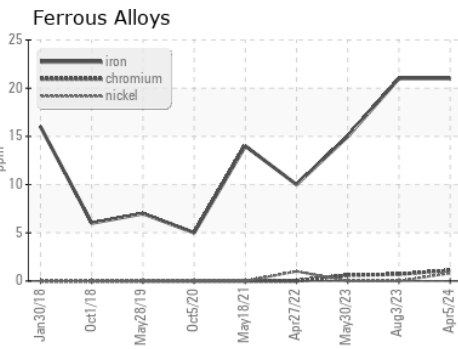
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.8	14.1	14.1

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003074 **Received** : 22 Apr 2024
Lab Number : **06156716** **Tested** : 23 Apr 2024
Unique Number : 10992139 **Diagnosed** : 24 Apr 2024 - Sean Felton
Test Package : CONST (Additional Tests: FT-IR, ICP, KV100, SCREEN, TBN)

Gary Merlino Construction - Off Road Shop
 9125 10TH AVE SOUTH
 SEATTLE, WA
 US 98108
 Contact: Jesse Patterson
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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)