OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
2408
Component
Diesel Engine
Fluid
ROYAL PURPLE MOTOR OIL 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

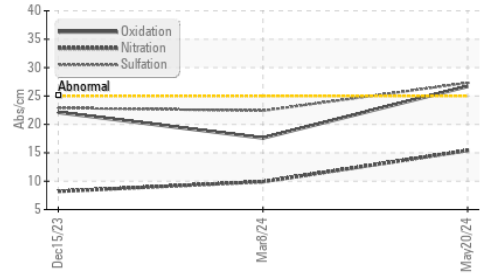
There is no indication of any contamination in the oil.

FLUID CONDITION

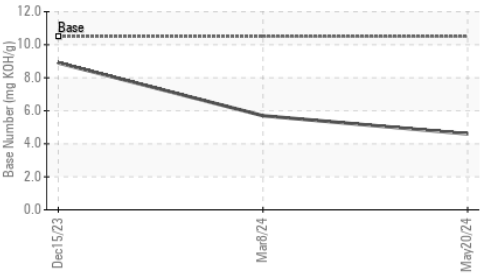
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0720010	WC0719854	WC0719945
Sample Date		Client Info		20 May 2024	08 Mar 2024	15 Dec 2023
Machine Age	mls	Client Info		120266	73592	0
Oil Age	mls	Client Info		100000	50000	22002
Filter Age	mls	Client Info		50000	50000	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	94	48	47
Chromium	ppm	ASTM D5185m	>20	8	3	2
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	65	34	16
Lead	ppm	ASTM D5185m	>40	2	2	3
Copper	ppm	ASTM D5185m	>330	368	343	190
Tin	ppm	ASTM D5185m	>15	2	0	7
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	6	7
Potassium	ppm	ASTM D5185m	>20	146	78	47
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	1.4	0.8	0.3
Nitration	Abs/cm	*ASTM D7624	>20	15.4	9.9	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	27.3	22.4	22.9
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		4	4	6
Boron	ppm	ASTM D5185m	0	1	1	38
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	100	7	6	42
Manganese	ppm	ASTM D5185m		3	2	5
Magnesium	ppm	ASTM D5185m	60	85	75	506
Calcium	ppm	ASTM D5185m	3050	2514	2370	1695
Phosphorus	ppm	ASTM D5185m	1050	880	792	700
Zinc	ppm	ASTM D5185m	1200	1148	942	873
Sulfur	ppm	ASTM D5185m	12500	2933	2712	1948
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.7	17.6	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	4.6	5.7	8.9
Visc @ 100°C	cSt	ASTM D445	14.9	13.9	12.7	9.5

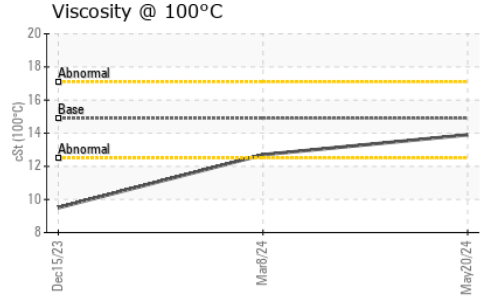
FT-IR (Direct Trend)



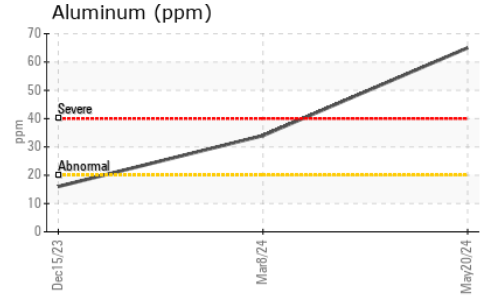
Base Number



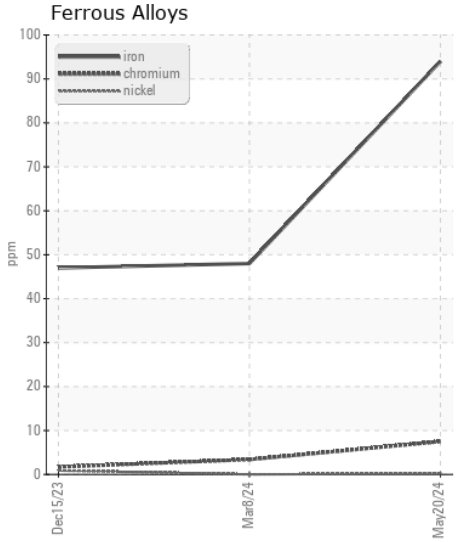
Viscosity @ 100°C



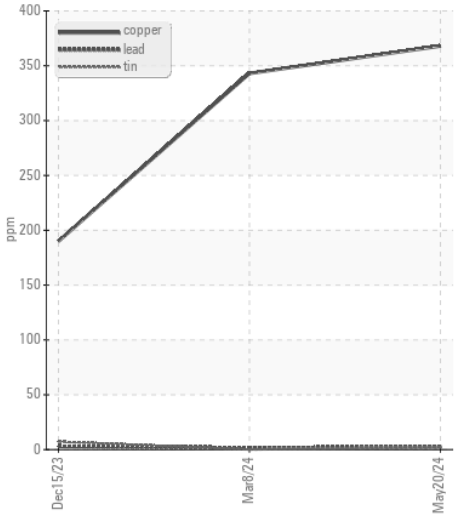
Aluminum (ppm)



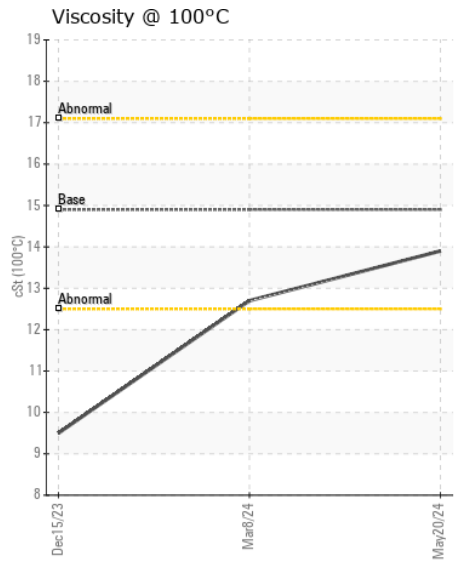
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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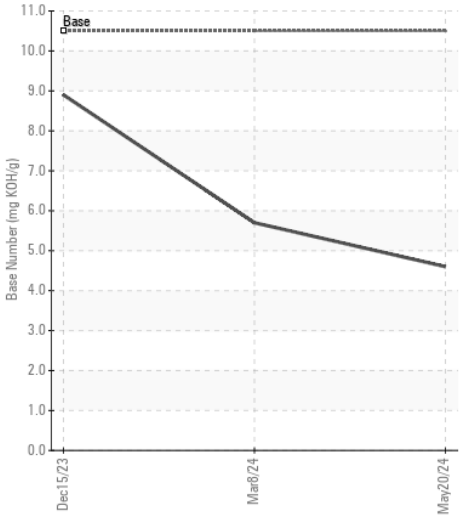

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0720010
Lab Number : 06219176
Unique Number : 11097373
Test Package : FLEET

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 26 Jun 2024 - Jonathan Hester

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)

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