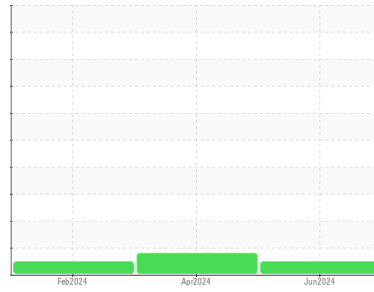




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

2426

Component

Diesel Engine

Fluid

ROYAL PURPLE MOTOR OIL 15W40 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

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			WC0720121	WC0720067	WC0720079
Sample Date	Client Info			07 Jun 2024	22 Apr 2024	29 Feb 2024
Machine Age	mls	Client Info		166848	123339	72205
Oil Age	mls	Client Info		0	100000	52205
Oil Changed	Client Info			Not Chngd	Changed	Not Chngd
Sample Status				NORMAL	ABNORMAL	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	29	84	44
Chromium	ppm	ASTM D5185m	>20	1	6	3
Nickel	ppm	ASTM D5185m	>4	<1	2	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	13	41	27
Lead	ppm	ASTM D5185m	>40	0	0	3
Copper	ppm	ASTM D5185m	>330	90	▲ 406	316
Tin	ppm	ASTM D5185m	>15	1	3	1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<1	0	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	100	1	9	7
Manganese	ppm	ASTM D5185m		1	2	1
Magnesium	ppm	ASTM D5185m	60	30	102	104
Calcium	ppm	ASTM D5185m	3050	2556	2605	2538
Phosphorus	ppm	ASTM D5185m	1050	975	977	935
Zinc	ppm	ASTM D5185m	1200	1158	1161	1123
Sulfur	ppm	ASTM D5185m	12500	3692	2876	2844

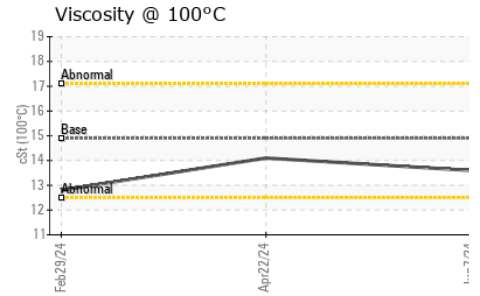
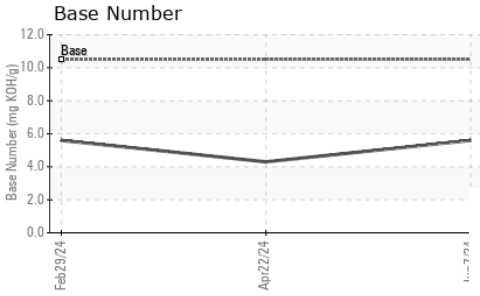
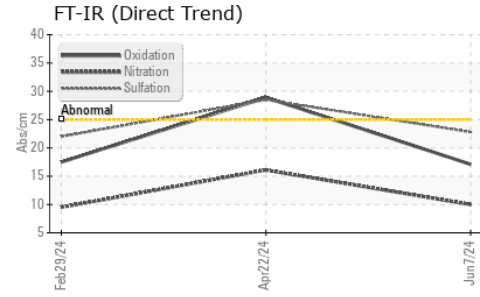
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	7	10	6
Sodium	ppm	ASTM D5185m		3	3	3
Potassium	ppm	ASTM D5185m	>20	29	94	59

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.8	1.4	0.7
Nitration	Abs/cm	*ASTM D7624	>20	10.0	16.1	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.8	28.5	22.0

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	28.9	17.5
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	5.6	4.3	5.6



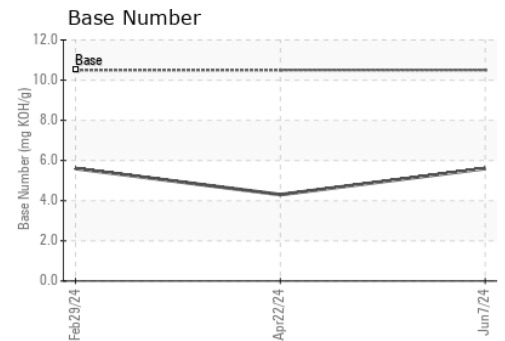
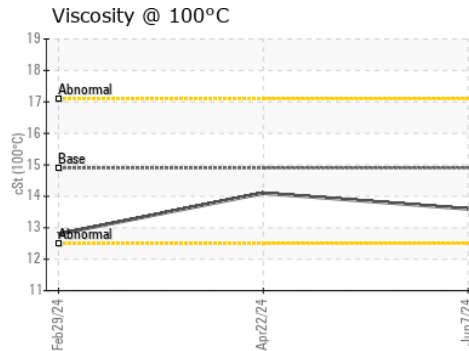
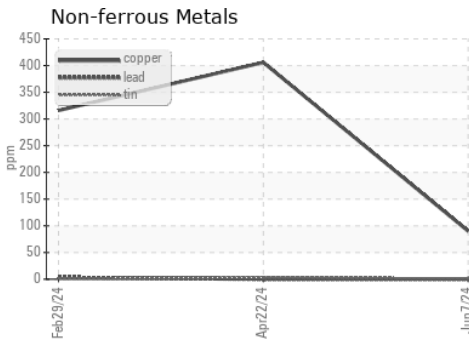
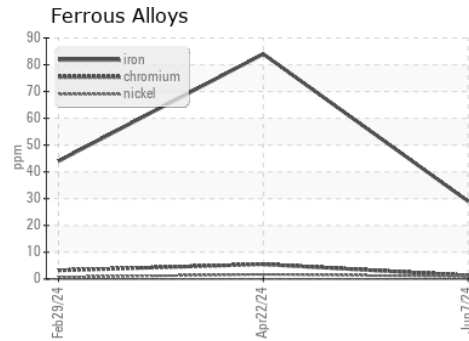
OIL ANALYSIS REPORT



PARAMETER	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	14.9	13.6	14.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0720121
Lab Number : 06213279
Unique Number : 11086143
Test Package : FLEET

Received : 18 Jun 2024
Tested : 19 Jun 2024
Diagnosed : 19 Jun 2024 - Wes Davis

DILLON TRANSPORTATION
 974 TN WALTZ PARKWAY
 ASHLAND CITY, TN
 US 37015

Contact: MASON NICHOLSON
 M.NICHOLSON@DILLONTRANSPORTATION.COM

T: (615)792-5099

F: (615)469-4200

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)