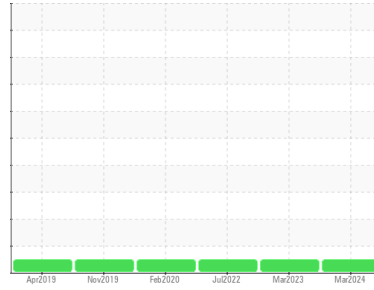




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**FSP136287**

Component

**Diesel Engine**

Fluid

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on 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			<b>WC0903184</b>	WC0787589	WC0696607
Sample Date	Client Info			<b>11 Mar 2024</b>	16 Mar 2023	07 Jul 2022
Machine Age	mls	Client Info		<b>335650</b>	313023	292208
Oil Age	mls	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<b>10</b>	11	18
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	4	4
Lead	ppm	ASTM D5185m	>40	<b>2</b>	2	3
Copper	ppm	ASTM D5185m	>330	<b>3</b>	4	4
Tin	ppm	ASTM D5185m	>15	<b>1</b>	1	2
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	<b>12</b>	<1	3
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>68</b>	62	55
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	450	<b>647</b>	991	872
Calcium	ppm	ASTM D5185m	3000	<b>1565</b>	1172	1076
Phosphorus	ppm	ASTM D5185m	1150	<b>1118</b>	1020	906
Zinc	ppm	ASTM D5185m	1350	<b>1308</b>	1325	1186
Sulfur	ppm	ASTM D5185m	4250	<b>3768</b>	3568	3140

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>4</b>	4	3
Sodium	ppm	ASTM D5185m	>158	<b>4</b>	7	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	2

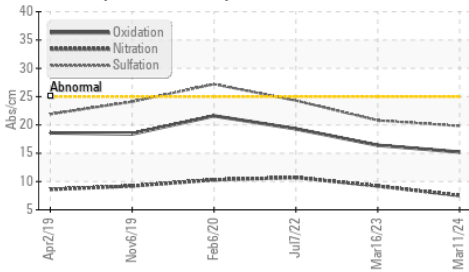
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.5	0.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.5</b>	9.2	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.8</b>	20.8	24.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.2</b>	16.4	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.6</b>	8.1	8.8

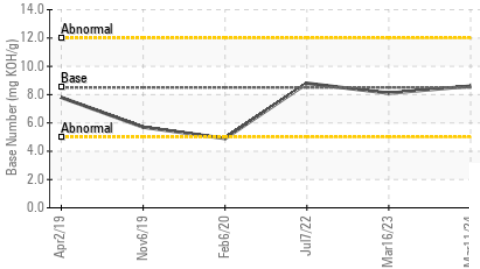


# OIL ANALYSIS REPORT

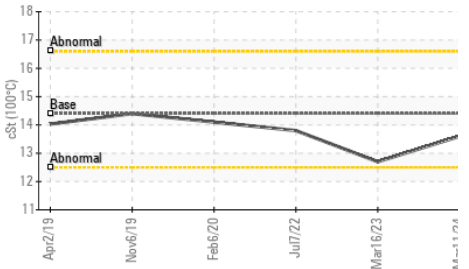
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

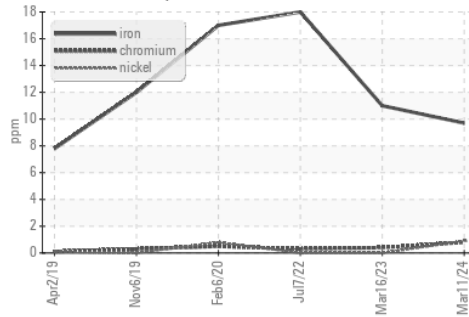


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

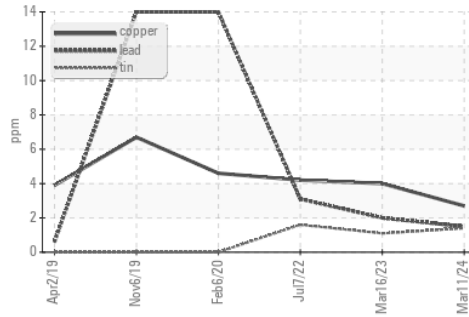
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	12.7

## GRAPHS

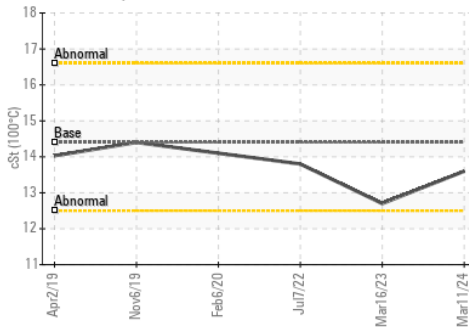
Ferrous Alloys



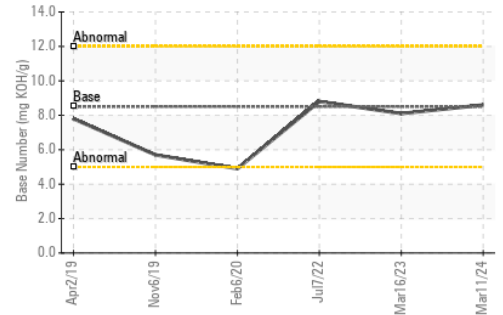
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0903184

Lab Number : 06143579

Unique Number : 10968387

Test Package : FLEET

Received : 09 Apr 2024

Tested : 10 Apr 2024

Diagnosed : 10 Apr 2024 - Wes Davis

FRESHPOINT

8801 EXCHANGE DRIVE

ORLANDO, FL

US 32809

Contact: CRAIG EVANS

evans\_craig@sbcglobal.net

T:

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)