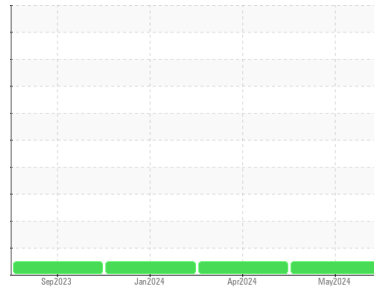




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

LSTK59

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

Metal levels are typical for a new component breaking in.

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			SBP0006846	SBP0006793	SBP0006202
Sample Date	Client Info			22 May 2024	15 Apr 2024	12 Jan 2024
Machine Age	mls	Client Info		12000	12000	12000
Oil Age	mls	Client Info		0	0	12000
Oil Changed	Client Info			Not Changed	Not 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	10	10	5
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	2
Lead	ppm	ASTM D5185m	>40	1	<1	1
Copper	ppm	ASTM D5185m	>330	2	0	1
Tin	ppm	ASTM D5185m	>15	<1	<1	1
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	250	<1	0	<1
Barium	ppm	ASTM D5185m	10	1	0	0
Molybdenum	ppm	ASTM D5185m	100	61	63	61
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	949	1078	920
Calcium	ppm	ASTM D5185m	3000	1094	1178	1006
Phosphorus	ppm	ASTM D5185m	1150	1143	1130	1027
Zinc	ppm	ASTM D5185m	1350	1265	1407	1178
Sulfur	ppm	ASTM D5185m	4250	3251	3866	2932

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	4	3
Sodium	ppm	ASTM D5185m	>216	1	2	2
Potassium	ppm	ASTM D5185m	>20	4	3	4

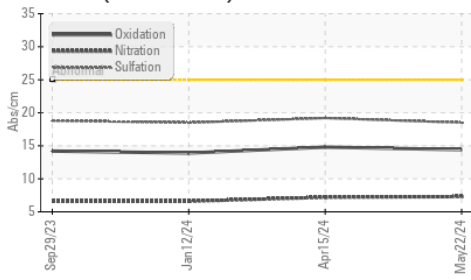
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.3	7.2	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.5	19.2	18.5

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4	14.8	13.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.4	8.5	8.4

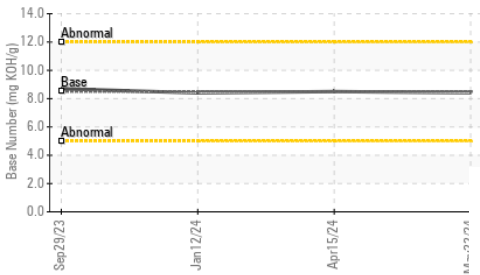


OIL ANALYSIS REPORT

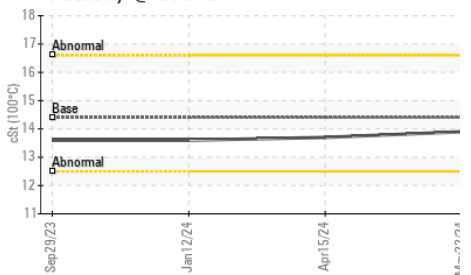
FT-IR (Direct Trend)



Base Number



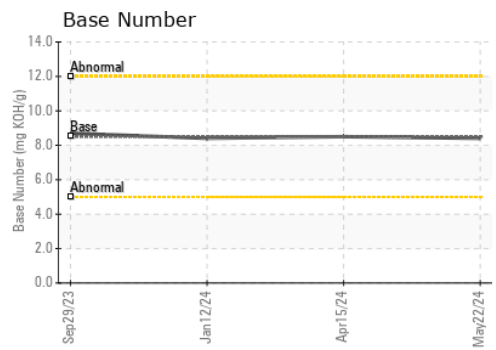
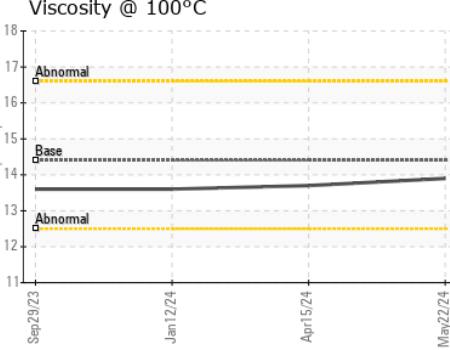
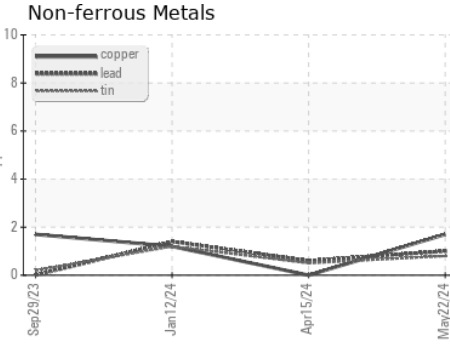
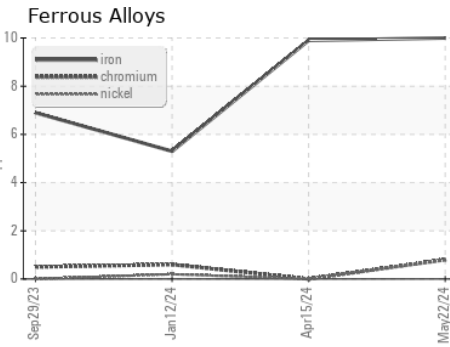
Viscosity @ 100°C



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	14.4	13.9	13.7	13.6

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0006846 **Received** : 24 Jun 2024
Lab Number : 06219222 **Tested** : 25 Jun 2024
Unique Number : 11097419 **Diagnosed** : 25 Jun 2024 - Wes Davis
Test Package : FLEET

Pillen Family Farms - 722828
 26741 NE-91
 Humphrey, NE
 US 61357
 Contact: Troy Runge
 troyfr@pillenfarms.com
 T: (308)390-6733
 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)