



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Pillen Family Farms

Machine Id

MILTK46

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 40 (--- GAL)

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		SBP0006862	SBP0006875	SBP0006802
Sample Date		Client Info		21 Jun 2024	07 May 2024	15 Apr 2024
Machine Age	hrs	Client Info		350	350	350
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	9	8	11
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	2	<1
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>330	<1	0	0
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

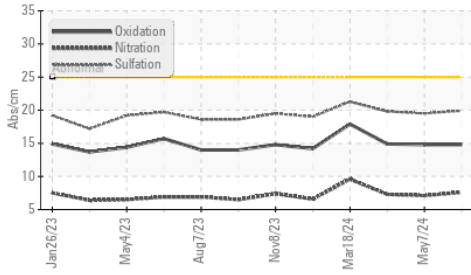
Silicon	ppm	ASTM D5185m	>25	3	4	3
Potassium	ppm	ASTM D5185m	>20	4	1	1
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	7.6	7.1	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	19.5	19.8
Silt	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

FLUID CONDITION

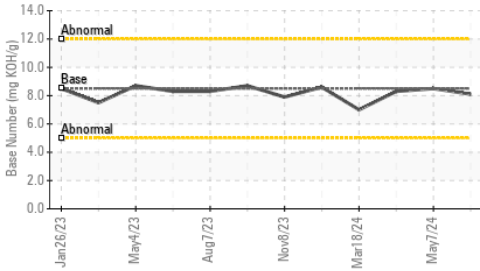
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	3	1	2
Boron	ppm	ASTM D5185m	250	4	0	0
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	57	62	63
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	450	952	1102	1072
Calcium	ppm	ASTM D5185m	3000	1070	1247	1198
Phosphorus	ppm	ASTM D5185m	1150	1041	1165	1145
Zinc	ppm	ASTM D5185m	1350	1264	1466	1431
Sulfur	ppm	ASTM D5185m	4250	3439	3936	3780
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	14.8	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.1	8.5	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	13.8	13.9	13.8

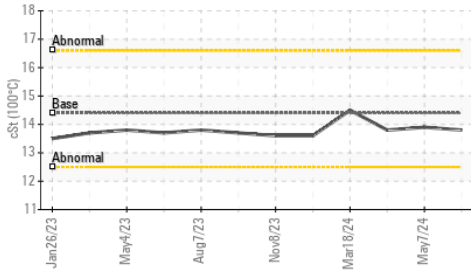
FT-IR (Direct Trend)



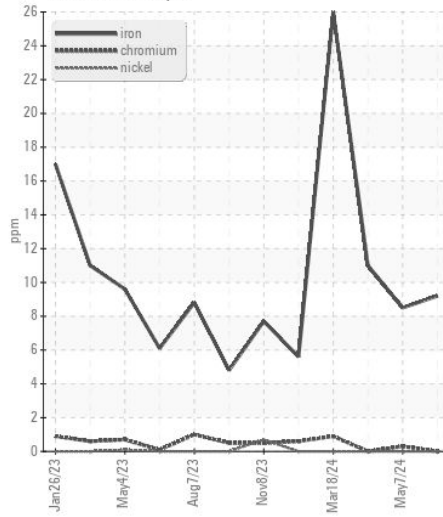
Base Number



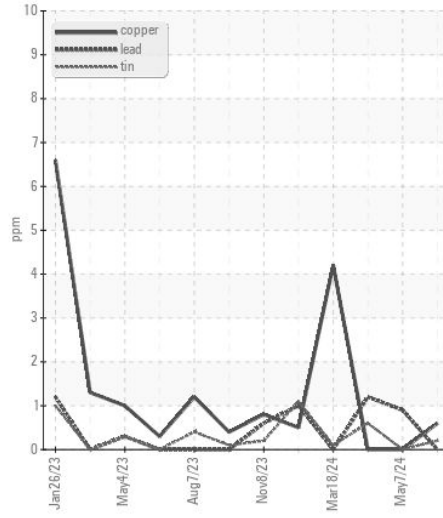
Viscosity @ 100°C



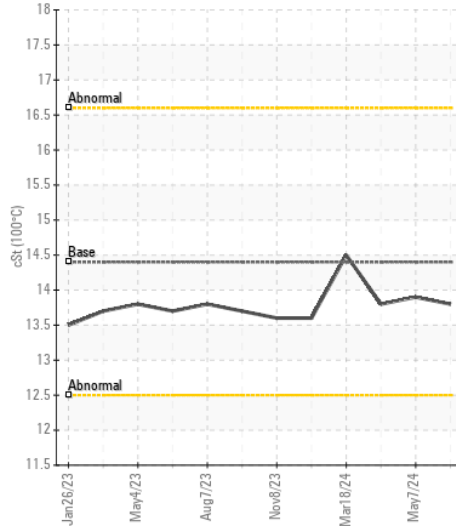
Ferrous Alloys



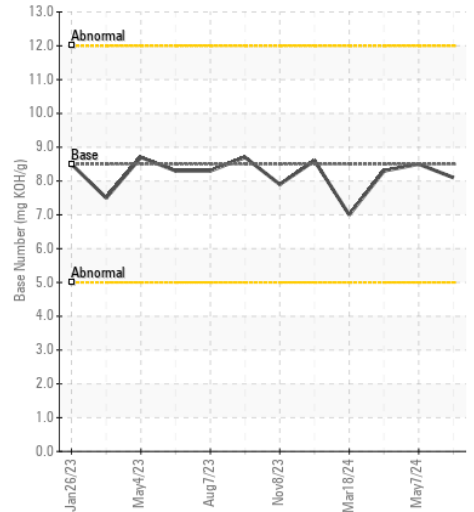
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : SBP0006862

Lab Number : 06239769

Unique Number : 11128603

Test Package : FLEET

Received : 17 Jul 2024

Tested : 18 Jul 2024

Diagnosed : 18 Jul 2024 - Wes Davis

Pillen Family Farms - 722828

26741 NE-91

Humphrey, NE

US 61357

Contact: Troy Runge

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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)