



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Pillen Family Farms

Machine Id
LSTK70

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		SBP0006840	SBP0005333	SBP0006214
Sample Date		Client Info		09 May 2024	21 Feb 2024	02 Nov 2023
Machine Age	mls	Client Info		12000	12000	0
Oil Age	mls	Client Info		0	12000	0
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	N/A
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	21	14	6
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	3
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<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.

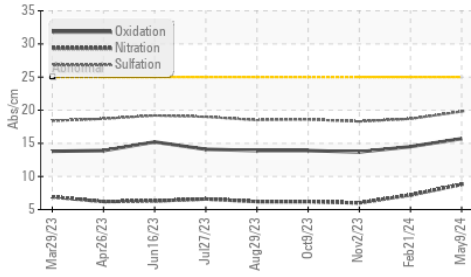
Silicon	ppm	ASTM D5185m	>25	5	6	3
Potassium	ppm	ASTM D5185m	>20	3	4	7
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.8	7.2	6.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	18.7	18.3
Silt	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

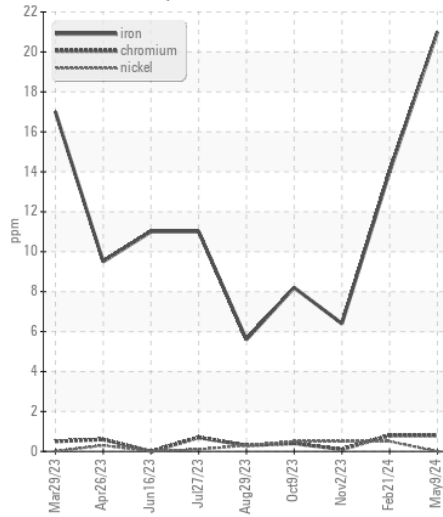
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	2	<1
Boron	ppm	ASTM D5185m	250	0	2	2
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	64	63	57
Manganese	ppm	ASTM D5185m		<1	0	0
Magnesium	ppm	ASTM D5185m	450	1114	1022	1102
Calcium	ppm	ASTM D5185m	3000	1256	1104	955
Phosphorus	ppm	ASTM D5185m	1150	1185	1111	1019
Zinc	ppm	ASTM D5185m	1350	1492	1350	1307
Sulfur	ppm	ASTM D5185m	4250	3897	3573	3038
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	14.5	13.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.2	8.4	8.6
Visc @ 100°C	cSt	ASTM D445	14.4	13.5	13.5	13.7

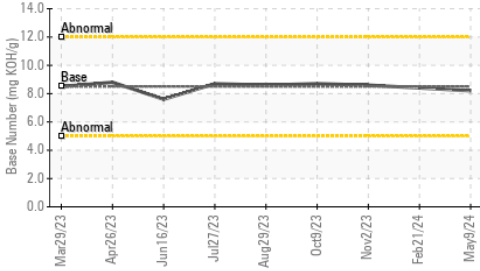
FT-IR (Direct Trend)



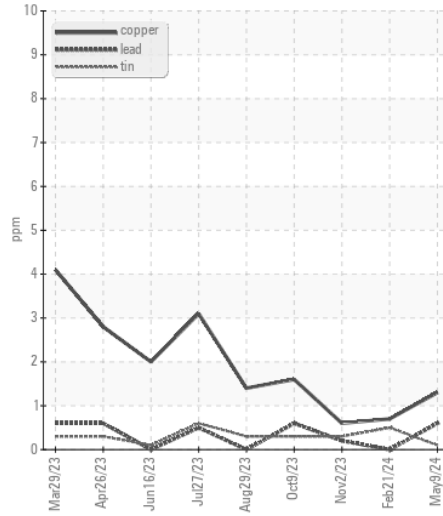
Ferrous Alloys



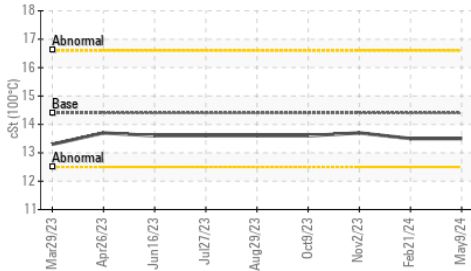
Base Number



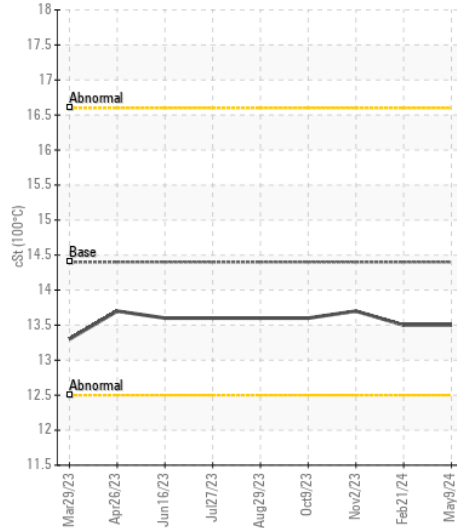
Non-ferrous Metals



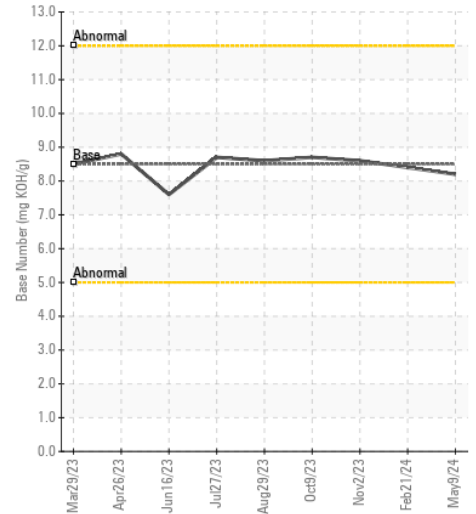
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : SBP0006840 **Received** : 28 May 2024
Lab Number : 06193299 **Tested** : 30 May 2024
Unique Number : 11050051 **Diagnosed** : 30 May 2024 - Wes Davis
Test Package : FLEET

Pillen Family Farms - 722828
 26741 NE-91
 Humphrey, NE
 US 61357
 Contact: Troy Runge
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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)