

# **OIL ANALYSIS REPORT**

# Pillen Family Farms LSTK65

Component **Diesel Engine** 

**DIESEL ENGINE OIL SAE 40 (--- GAL)** 

Sample Rating Trend



### 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

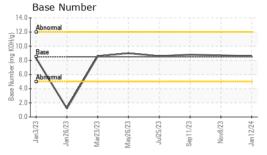
### **Fluid Condition**

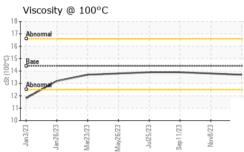
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	NOITAN	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0006241	SBP0006215	SBP0001003
Sample Date		Client Info		12 Jan 2024	08 Nov 2023	11 Sep 2023
Machine Age	mls	Client Info		12000	0	0
Oil Age	mls	Client Info		12000	0	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	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	4	6	6
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	1	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	2	3	5
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	1	<1	0
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	250	0	<1	2
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	60	50	62
Manganese	ppm	ASTM D5185m		<1	0	4
Magnesium	ρρ	710 1111 20 100111		<u> </u>	0	<1
0	ppm	ASTM D5185m	450	918	1008	1010
Calcium			450 3000			
	ppm	ASTM D5185m		918	1008	1010
Calcium	ppm	ASTM D5185m ASTM D5185m	3000	918 1014	1008 786	1010 1106
Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	3000 1150	918 1014 1031	1008 786 859	1010 1106 1145
Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3000 1150 1350	918 1014 1031 1184	1008 786 859 1227	1010 1106 1145 1368
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3000 1150 1350 4250 limit/base	918 1014 1031 1184 2989	1008 786 859 1227 2848	1010 1106 1145 1368 3401
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	3000 1150 1350 4250 limit/base >25	918 1014 1031 1184 2989	1008 786 859 1227 2848 history1	1010 1106 1145 1368 3401 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	3000 1150 1350 4250 limit/base >25 >216	918 1014 1031 1184 2989 current	1008 786 859 1227 2848 history1	1010 1106 1145 1368 3401 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	3000 1150 1350 4250 limit/base >25 >216	918 1014 1031 1184 2989 current 3	1008 786 859 1227 2848 history1 4	1010 1106 1145 1368 3401 history2 4
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3000 1150 1350 4250 limit/base >25 >216 >20	918 1014 1031 1184 2989 current 3 2	1008 786 859 1227 2848 history1 4 <1	1010 1106 1145 1368 3401 history2 4 2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m	3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	918 1014 1031 1184 2989 current 3 2 3	1008 786 859 1227 2848 history1 4 <1 21 history1	1010 1106 1145 1368 3401 history2 4 2 12
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m *ASTM D5185m	3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20	918 1014 1031 1184 2989 current 3 2 3 current 0.3	1008 786 859 1227 2848 history1 4 <1 21 history1 0.3	1010 1106 1145 1368 3401 history2 4 2 12 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm Abs/.tmm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  METHOD  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  METHOD  *ASTM D7844  *ASTM D7624	3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20	918 1014 1031 1184 2989 current 3 2 3 current 0.3 6.3	1008 786 859 1227 2848 history1 4 <1 21 history1 0.3 6.4	1010 1106 1145 1368 3401 history2 4 2 12 history2 0.3 6.4
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm Abs/.tmm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m  Method ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20 >3 limit/base	918 1014 1031 1184 2989 current 3 2 3 current 0.3 6.3 18.4	1008 786 859 1227 2848 history1 4 <1 21 history1 0.3 6.4 18.3	1010 1106 1145 1368 3401 history2 4 2 12 history2 0.3 6.4 18.4
Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415 Method	3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20 >30 limit/base	918 1014 1031 1184 2989	1008 786 859 1227 2848 history1 4 <1 21 history1 0.3 6.4 18.3 history1	1010 1106 1145 1368 3401 history2 4 2 12 history2 0.3 6.4 18.4 history2



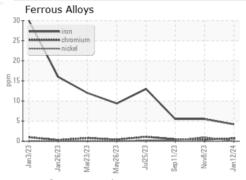
# **OIL ANALYSIS REPORT**

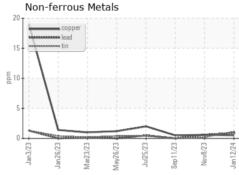


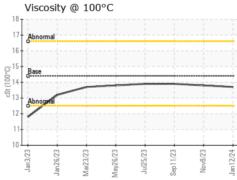


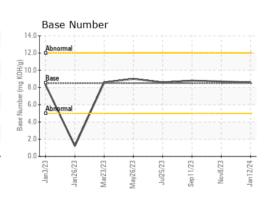
VISUAL		method				history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERT	IES	method			history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	13.7	13.8	13.9













Certificate L2367

Laboratory Sample No. Lab Number Test Package : FLEET

Unique Number : 10859497

: SBP0006241 : 06077406

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 01 Feb 2024 Diagnosed : 02 Feb 2024

Diagnostician : Wes Davis

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)

Pillen Family Farms - 722828

26741 NE-91 Humphrey, NE US 61357

Contact: Troy Runge troyfr@pillenfamilyfarms.com T: (308)390-6733