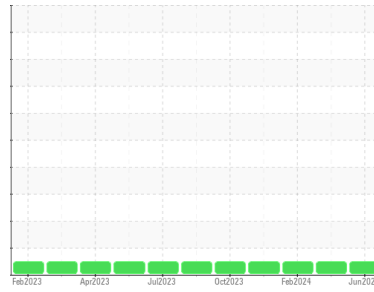




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area

**Pillen Family Farms**

Machine Id  
**LSTK 66**

Component  
**Diesel Engine**

Fluid  
 **DIESEL ENGINE OIL SAE 40 (--- 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

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	<b>SBP0006854</b>	SBP0006806	SBP0005322
Sample Date	Client Info	<b>11 Jun 2024</b>	15 Apr 2024	21 Feb 2024
Machine Age	mls Client Info	<b>12000</b>	12000	12000
Oil Age	mls Client Info	<b>0</b>	0	12000
Oil Changed	Client Info	<b>Not Changed</b>	Not Changed	Not 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>9</b>	6	12
Chromium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	<1
Nickel	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm ASTM D5185m >3	<b>&lt;1</b>	0	0
Aluminum	ppm ASTM D5185m >20	<b>3</b>	<1	4
Lead	ppm ASTM D5185m >40	<b>1</b>	<1	<1
Copper	ppm ASTM D5185m >330	<b>2</b>	0	<1
Tin	ppm ASTM D5185m >15	<b>&lt;1</b>	<1	<1
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>&lt;1</b>	0	1
Barium	ppm ASTM D5185m 10	<b>1</b>	0	0
Molybdenum	ppm ASTM D5185m 100	<b>60</b>	63	68
Manganese	ppm ASTM D5185m	<b>&lt;1</b>	0	0
Magnesium	ppm ASTM D5185m 450	<b>946</b>	1083	1017
Calcium	ppm ASTM D5185m 3000	<b>1087</b>	1183	1104
Phosphorus	ppm ASTM D5185m 1150	<b>1157</b>	1178	1037
Zinc	ppm ASTM D5185m 1350	<b>1274</b>	1441	1290
Sulfur	ppm ASTM D5185m 4250	<b>3322</b>	3988	3131

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	<b>5</b>	3	5
Sodium	ppm ASTM D5185m >216	<b>1</b>	2	2
Potassium	ppm ASTM D5185m >20	<b>5</b>	2	6

## INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	<b>0.3</b>	0.3	0.4
Nitration	Abs/cm *ASTM D7624 >20	<b>7.0</b>	6.3	7.2
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>18.7</b>	18.6	18.8

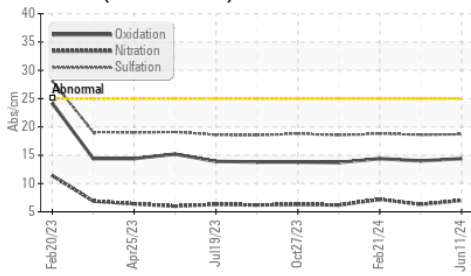
## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>14.4</b>	14.0	14.4
Base Number (BN)	mg KOH/g ASTM D2896 8.5	<b>8.3</b>	8.6	8.4

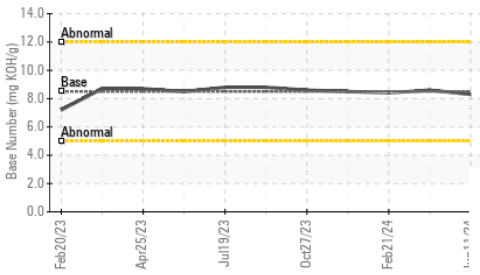


# OIL ANALYSIS REPORT

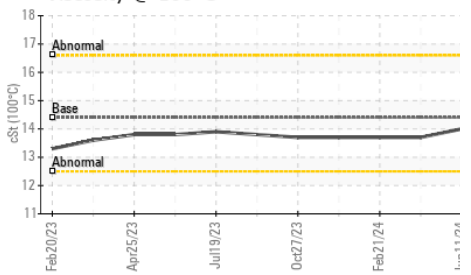
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

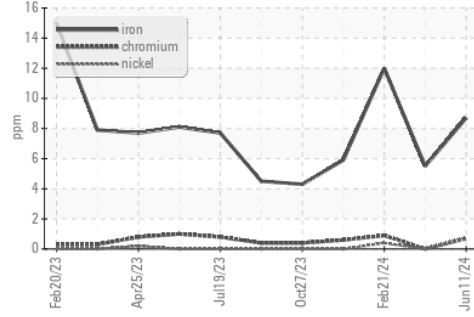


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

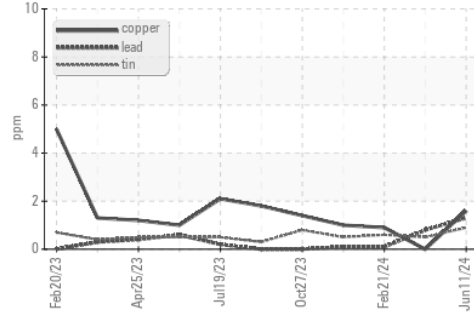
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.0</b>	13.7	13.7

## GRAPHS

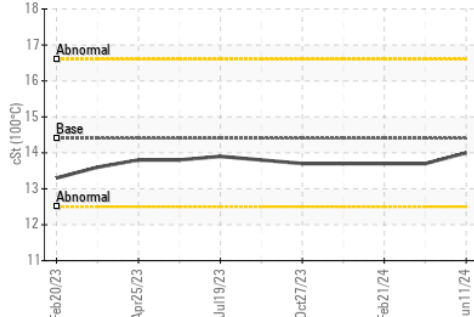
Ferrous Alloys



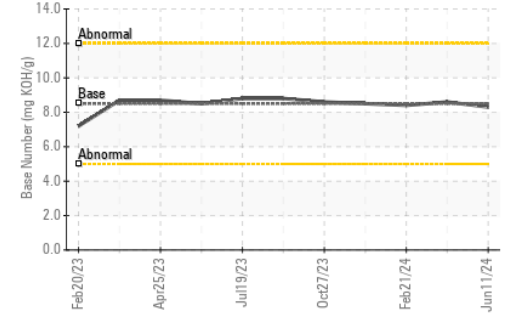
Non-ferrous Metals



Viscosity @ 100°C



Base Number



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : SBP0006854      **Received** : 24 Jun 2024  
**Lab Number** : **06219228**      **Tested** : 25 Jun 2024  
**Unique Number** : 11097425      **Diagnosed** : 25 Jun 2024 - Wes Davis  
**Test Package** : FLEET

**Pillen Family Farms - 722828**  
 26741 NE-91  
 Humphrey, NE  
 US 61357  
 Contact: Troy Runge  
 troyfr@pillenfamilyfarms.com

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)