

# **OIL ANALYSIS REPORT**

### Area Pillen Family Farms Machine Id MILTK40 Component

Diesel Engine

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

# DIAGNOSIS

## Recommendation

Resample at the next service interval to monitor.

#### Wear

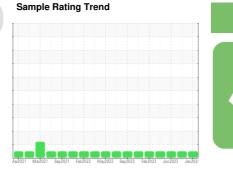
All component wear rates are normal.

### 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.



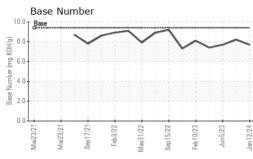


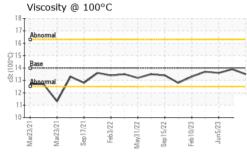
NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0006237	SBP0002413	SBP0002402
Sample Date		Client Info		12 Jan 2024	28 Aug 2023	05 Jun 2023
Machine Age	hrs	Client Info		350	0	0
Oil Age	hrs	Client Info		350	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	38	9	10
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	3	2
Lead	ppm	ASTM D5185m	>40	2	0	<1
Copper	ppm	ASTM D5185m	>330	<1	0	<1
Tin	ppm	ASTM D5185m	>15	1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	current 0	history1 2	history2 5
	ppm ppm					
Boron		ASTM D5185m ASTM D5185m	0	0	2	5
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	0 0	2 0	5
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0	0 0 61	2 0 62	5 0 59
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 61 <1	2 0 62 <1	5 0 59 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 61 <1 933	2 0 62 <1 1024	5 0 59 <1 1022
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 61 <1 933 1020	2 0 62 <1 1024 1104	5 0 59 <1 1022 1145
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 61 <1 933 1020 1018	2 0 62 <1 1024 1104 1132	5 0 59 <1 1022 1145 1080
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 61 <1 933 1020 1018 1200	2 0 62 <1 1024 1104 1132 1385	5 0 59 <1 1022 1145 1080 1371
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 0	0 0 61 <1 933 1020 1018 1200 2896	2 0 62 <1 1024 1104 1132 1385 3287	5 0 59 <1 1022 1145 1080 1371 3836
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 61 <1 933 1020 1018 1200 2896 current	2 0 62 <1 1024 1104 1132 1385 3287 history1	5 0 59 <1 1022 1145 1080 1371 3836 history2 4 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 61 <1 933 1020 1018 1200 2896 current 4	2 0 62 <1 1024 1104 1132 1385 3287 history1 4	5 0 59 <1 1022 1145 1080 1371 3836 history2 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 61 <1 933 1020 1018 1200 2896 <u>current</u> 4 2	2 0 62 <1 1024 1104 1132 1385 3287 history1 4 2	5 0 59 <1 1022 1145 1080 1371 3836 history2 4 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 61 <1 933 1020 1018 1200 2896 current 4 2 3	2 0 62 <1 1024 1104 1132 1385 3287 history1 4 2 6 history1 0.4	5 0 59 <1 1022 1145 1080 1371 3836 history2 4 2 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	0 0 61 <1 933 1020 1018 1200 2896 current 4 2 3 3	2 0 62 <1 1024 1104 1132 1385 3287 history1 4 2 6 history1	5 0 59 <1 1022 1145 1080 1371 3836 <b>history2</b> 4 2 2 <b>history2</b>
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 limit/base >25 >20 limit/base >3	0 0 61 <1 933 1020 1018 1200 2896 <u>current</u> 4 2 3 <u>current</u> 0.4	2 0 62 <1 1024 1104 1132 1385 3287 history1 4 2 6 history1 0.4	5 0 59 <1 1022 1145 1080 1371 3836 <b>history2</b> 4 2 2 <b>history2</b> 0.4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 61 <1 933 1020 1018 1200 2896 <i>current</i> 4 2 3 <i>current</i> 0.4 8.1	2 0 62 <1 1024 1104 1132 1385 3287 history1 4 2 6 history1 0.4 7.6	5 0 59 <1 1022 1145 1080 1371 3836 history2 4 2 2 4 2 2 history2 0.4 7.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 61 <1 933 1020 1018 1200 2896 <u>current</u> 4 2 3 <u>current</u> 0.4 8.1 19.8	2 0 62 <1 1024 1104 1132 1385 3287 history1 4 2 6 history1 0.4 7.6 19.3	5 0 59 <1 1022 1145 1080 1371 3836 <b>history2</b> 4 2 2 <b>history2</b> 0.4 7.7 20.1



# **OIL ANALYSIS REPORT**





VISUAL		method	limit/base	current	history1	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
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	13.5	13.9	13.6
GRAPHS						

Ferrous Alloys 60 50 ickel 40 E 30 20 10 Π. Feb3/22 Jan 12/24 Mar23/21 Mar23/21 Sep17/21 Sen 15/77 Feb 10/23 /lav31/22 Non-ferrous Metals 20 lead 15 ud 10-Feb3/22 an 12/24 an15/7 Mar23/2 /ar/ Sep 1 Viscosity @ 100°C Base Number 18 10.0 17 16 8. (mg KOH/g) 6 ( umber 4 ( Base 12 10 0.0 Jan12/24 -Sep17/21. Feb3/22 Sep15/22 Mar23/21 Jun5/23 Jan 12/24 Mar23/21 Mar23/21 Sep17/21 May31/22 Feb10/23 Mar23/21 May31/22 Sep15/22 Feb 10/23 Feb3/22 Pillen Family Farms - 722828 Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : SBP0006237 Recieved :01 Feb 2024 26741 NE-91 Lab Number :04 Feb 2024 Humphrey, NE : 06077407 Diagnosed Unique Number : 10859498 Diagnostician : Don Baldridge US 61357 Test Package : FLEET 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)

Certificate L2367

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