

OIL ANALYSIS REPORT

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Area **Pillen Family Farms** MILTK50 Component

Diesel Engine

Fluid MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

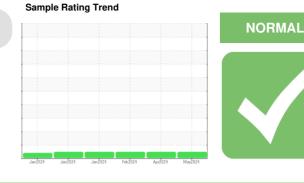
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

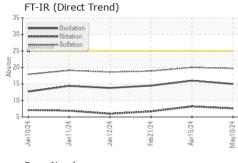
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

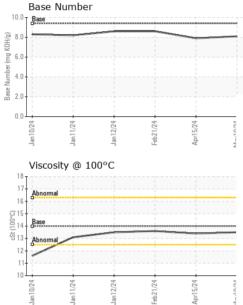


SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0006879	SBP0006804	SBP0005314
Sample Date		Client Info		10 May 2024	15 Apr 2024	21 Feb 2024
Machine Age	hrs	Client Info		350	350	350
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<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	>90	19	23	15
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	9	5	5
Lead	ppm	ASTM D5185m	>40	<1	1	0
Copper	ppm	ASTM D5185m	>330	<1	1	1
Tin	ppm	ASTM D5185m	>15	<1	1	<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	method ASTM D5185m	limit/base 0	current 0	history1 0	history2 1
	ppm ppm					
Boron		ASTM D5185m	0	0	0	1
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	0 0	0 0	1 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	0 0 63	0 0 64	1 0 64
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 63 <1	0 0 64 0	1 0 64 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	0 0 63 <1 1116	0 0 64 0 1089	1 0 64 0 1038
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 63 <1 1116 1258	0 0 64 0 1089 1194	1 0 64 0 1038 1100
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 63 <1 1116 1258 1150	0 0 64 0 1089 1194 1116	1 0 64 0 1038 1100 1102
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 63 <1 1116 1258 1150 1478	0 0 64 0 1089 1194 1116 1422	1 0 64 0 1038 1100 1102 1339
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 63 <1 1116 1258 1150 1478 3778	0 0 64 0 1089 1194 1116 1422 3547	1 0 64 0 1038 1100 1102 1339 3419
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 Imit/base	0 0 63 <1 1116 1258 1150 1478 3778 current	0 0 64 0 1089 1194 1116 1422 3547 history1	1 0 64 0 1038 1100 1102 1339 3419 history2
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 method	0 0 0 0 Imit/base	0 0 63 <1 1116 1258 1150 1478 3778 current 5	0 0 64 0 1089 1194 1116 1422 3547 history1 6	1 0 64 0 1038 1100 1102 1339 3419 history2 6
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 method ASTM D5185m	0 0 0 0 limit/base >25	0 0 63 <1 1116 1258 1150 1478 3778 current 5 2	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3
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 limit/base >25 >20	0 0 63 <1 1116 1258 1150 1478 3778 current 5 2 2 22	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3 3 11	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3 10
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 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 63 <1 1116 1258 1150 1478 3778 current 5 2 2 22 current	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3 11 history1	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3 10 history2
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 >6	0 0 63 <1 1116 1258 1150 1478 3778 current 5 2 2 22 22 current 0.5	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3 11 6 3 11 history1 0.6	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3 10 history2 0.3
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 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0 0 63 <1 1116 1258 1150 1478 3778 current 5 2 22 22 current 0.5 7.6	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3 3 11 6 3 11 6 8 3 11 0.6 8.2	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3 10 history2 0.3 6.7
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 63 <1 1116 1258 1150 1478 3778 <u>current</u> 5 2 22 22 <u>current</u> 0.5 7.6 19.7	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3 11 6 3 11 0.6 8.2 20.0	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3 10 history2 0.3 6.7 18.9
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 D7844 *ASTM D7624 *ASTM D7415	0 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	0 0 63 <1 1116 1258 1150 1478 3778 <i>current</i> 5 2 2 22 <i>current</i> 0.5 7.6 19.7 <i>current</i>	0 0 64 0 1089 1194 1116 1422 3547 history1 6 3 3 11 6 3 11 0.6 8.2 20.0 history1	1 0 64 0 1038 1100 1102 1339 3419 history2 6 3 10 history2 0.3 6.7 18.9 history2

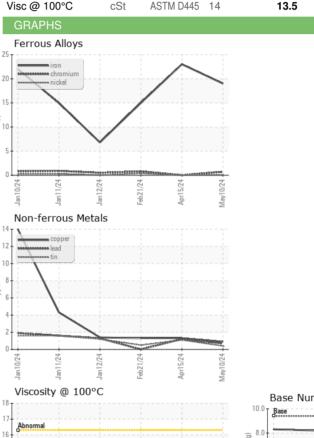


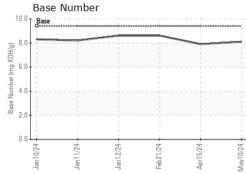
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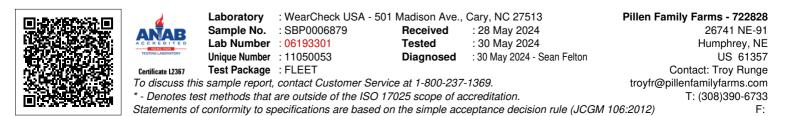




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14	13.5	13.4	13.6







Jan 12/24

Apr15/24 -

Feb21/24

May10/24 -

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Jan10/24

Jan11/24

Submitted By: JUSTIN HANSON