

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

OSHKOSH 4430

Component Diesel Engine

Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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 INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0917151	WC0893811	
Sample Date		Client Info		17 May 2024	01 Feb 2024	
Machine Age	mls	Client Info		12498	9955	
Oil Age	mls	Client Info		0	0	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	6	6	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	2	<1	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	<1	0	
Tin	ppm	ASTM D5185m	>15	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES						
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	method ASTM D5185m	limit/base 250	current 9	history1 2	history2
	ppm ppm					
Boron		ASTM D5185m	250	9	2	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	9 0	2 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	9 0 59	2 0 57	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	9 0 59 0	2 0 57 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	9 0 59 0 883	2 0 57 <1 935	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	9 0 59 0 883 1058	2 0 57 <1 935 1031	
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	250 10 100 450 3000 1150	9 0 59 0 883 1058 1083	2 0 57 <1 935 1031 1065	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	9 0 59 0 883 1058 1083 1227	2 0 57 <1 935 1031 1065 1241	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	9 0 59 0 883 1058 1083 1227 3103	2 0 57 <1 935 1031 1065 1241 3031	
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	250 10 100 450 3000 1150 1350 4250	9 0 59 0 883 1058 1083 1227 3103 current	2 0 57 <1 935 1031 1065 1241 3031 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	250 10 100 450 3000 1150 1350 4250 limit/base >25	9 0 59 0 883 1058 1083 1227 3103 current 3	2 0 57 <1 935 1031 1065 1241 3031 history1 2	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158	9 0 59 0 883 1058 1083 1227 3103 current 3 <	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20	9 0 59 0 883 1058 1083 1227 3103 current 3 current 2	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1 0	 history2
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	250 10 100 450 3000 1150 1350 4250 Imit/base >25 >158 >20 Imit/base	9 0 59 0 883 1058 1083 1227 3103 current 3 <1 2 Current	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1 0 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >3	9 0 59 0 883 1058 1083 1227 3103 current 3 current 2 current 0.2	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1 0 history1 0.3	 history2 history2 history2
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	250 10 100 450 3000 1150 1350 4250 i mit/base >25 >158 >20 i mit/base >3 >20	9 0 59 0 883 1058 1083 1227 3103 current 3 3 <1 2 current 0.2 5.8	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1 0 history1 0.3 6.0	 history2 history2
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	250 10 100 450 3000 1150 1350 4250 imit/base >25 >158 >20 imit/base >3 >20 >3	9 0 59 0 883 1058 1083 1227 3103 current 3 <1 2 current 0.2 5.8 17.6	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1 0 history1 0.3 6.0 18.0	 history2 history2 history2
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	250 10 100 450 3000 1150 1350 4250 limit/base >25 >158 >20 limit/base >3 >20 >30	9 0 59 0 883 1058 1083 1227 3103 <i>current</i> 3 3 <1 2 <i>current</i> 0.2 5.8 17.6	2 0 57 <1 935 1031 1065 1241 3031 history1 2 <1 0 history1 0.3 6.0 18.0 history1	 history2 history2 history2 history2



31

2!

Abs/cm

10

14

0.212.0 0.0 KOH/g) 0.8 Base Number (mg KOH/g) 0.9 CON KOH/g)

2.0

0.0

18 17

16

cSt (100°C)

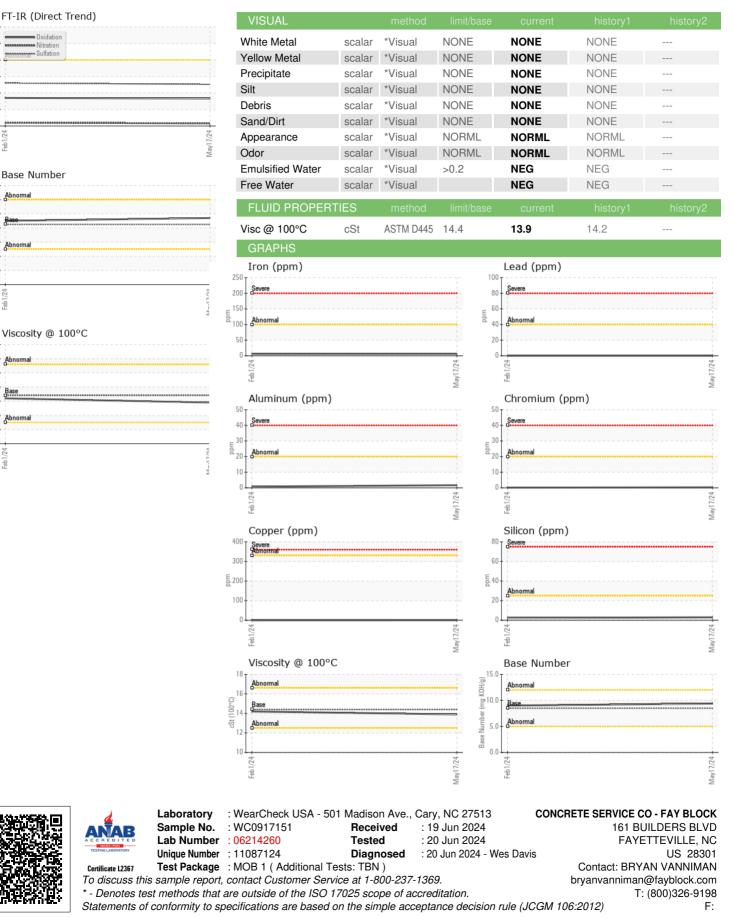
Abnormal

Feb1/24

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OIL ANALYSIS REPORT



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