

OIL ANALYSIS REPORT

Sample Rating Trend

WEAR

Machine Id KENWORTH T880 BXS21880

Diesel Engine Fluid SHELL ROTELLA T 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

🔺 Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

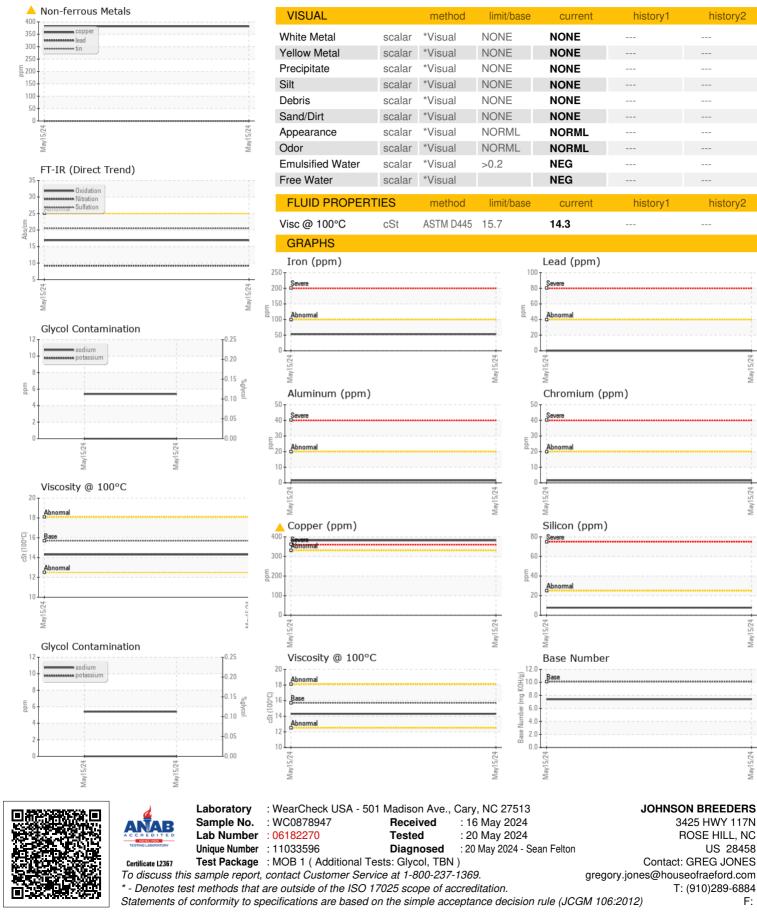
Fluid Condition

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

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0878947		
Sample Date		Client Info		15 May 2024		
Machine Age	mls	Client Info		132123		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>100	53		
-	ppm	ASTM D5185m	>20	2		
	ppm	ASTM D5185m	>4	0		
	ppm	ASTM D5185m	~	0		
			~ 2	-		
	ppm	ASTM D5185m	>3	0		
	ppm	ASTM D5185m	>20	2		
	ppm	ASTM D5185m	>40	0		
	ppm		>330	<u> </u>		
	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	316	6		
Barium	ppm	ASTM D5185m	0.0	0		
Volybdenum	ppm	ASTM D5185m	1.2	46		
	ppm	ASTM D5185m		1		
	1-1-					
viauriesiuri	maa	ASTM D5185m	24	651		
	ppm ppm	ASTM D5185m ASTM D5185m	24	651 1449		
Calcium	ppm	ASTM D5185m	2292	1449		
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	2292 1064	1449 984		
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2292 1064 1160	1449 984 1165		
Calcium Phosphorus Zinc Sulfur	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2292 1064 1160 4996	1449 984 1165 3064		
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2292 1064 1160 4996 limit/base	1449 984 1165 3064 current		
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2292 1064 1160 4996	1449 984 1165 3064		
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2292 1064 1160 4996 limit/base	1449 984 1165 3064 current	 history1	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2292 1064 1160 4996 limit/base	1449 984 1165 3064 current 8	 history1	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2292 1064 1160 4996 limit/base >25	1449 984 1165 3064 <u>current</u> 8 5	 history1 	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2292 1064 1160 4996 limit/base >25	1449 984 1165 3064 <u>current</u> 8 5 0	 history1 	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982	2292 1064 1160 4996 limit/base >25 >20	1449 984 1165 3064 current 8 5 0 NEG current	 history1 	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844	2292 1064 1160 4996 limit/base >25 >20 limit/base >3	1449 984 1165 3064 current 8 5 0 NEG current 0.5	 history1 history1	 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method	2292 1064 1160 4996 limit/base >25 >20 limit/base >3	1449 984 1165 3064 current 8 5 0 NEG current	 history1 history1 	 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7844	2292 1064 1160 4996 limit/base >25 >20 limit/base >3 >20	1449 984 1165 3064 current 8 5 0 NEG 0 NEG 0.5 9.2	 history1 history1 	 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation FLUID DEGRADAT	ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D5185m *ASTM D2982 method *ASTM D7844 *ASTM D7844	2292 1064 1160 4996 >25 >20 \$20 limit/base >3 >20 >20 >30	1449 984 1165 3064 current 8 5 0 NEG current 0.5 9.2 20.5	 history1 history1 history1	 history2 history2 history2



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