

OIL ANALYSIS REPORT

Old Bridge **KENWORTH 1305**

Component Diesel Engine

GIBRALTAR 15W/40 SUPER S-3 LX (11)

Recommendation

Resample at the next service interval to monitor.

Wear

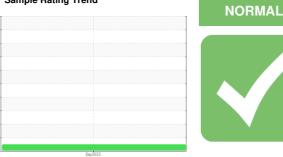
All component wear rates are normal.

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 Rating Trend

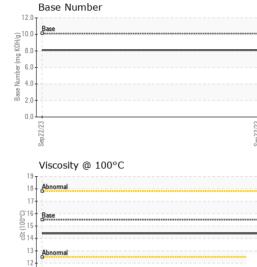


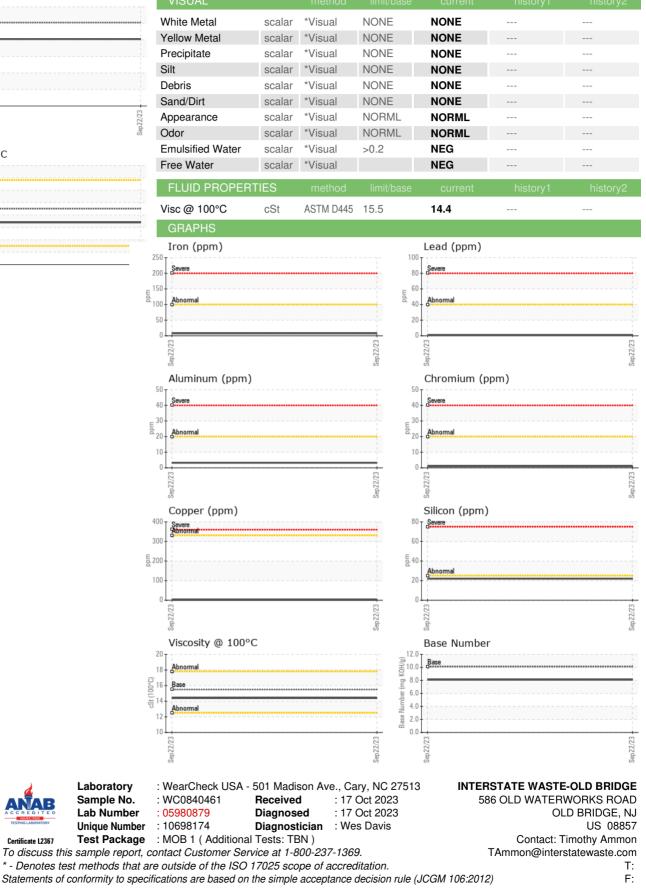
SAMPLE INFORM	ATI <u>ON</u>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0840461		
Sample Date		Client Info		22 Sep 2023		
Machine Age	hrs	Client Info		21085		
Oil Age	hrs	Client Info		450		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	8		
Chromium	ppm	ASTM D5185m	>20	1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>40	1		
Copper	ppm	ASTM D5185m	>330	2		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
Oddinidini	ppm			Ū		
ADDITIVES	PPIII	method	limit/base	current	history1	history2
	ppm		limit/base		history1	history2
ADDITIVES		method	limit/base	current		
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 7		
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m		current 7 0		
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		current 7 0 68		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66	Current 7 0 68 <1 910 1349		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150	Current 7 0 68 <1 910 1349 1184		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050	current 7 0 68 <1 910 1349 1184 1484	 	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150	Current 7 0 68 <1 910 1349 1184		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base	current 7 0 68 <1 910 1349 1184 1484 4009 current		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base	current 7 0 68 <1 910 1349 1184 1484 4009 current 22		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >25	current 7 0 68 <1 910 1349 1184 1484 4009 current 22 0	 history1	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25	current 7 0 68 <1 910 1349 1184 1484 4009 current 22	 history1 	 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >25	current 7 0 68 <1 910 1349 1184 4009 current 22 0 1 22 0 1 current	 history1	 history2
ADDITIVES 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	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >3	current 7 0 68 <1 910 1349 1184 4009 current 22 0 1 current 0 1 current 0.2	 history1 	 history2
ADDITIVES 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	method ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >3	current 7 0 68 <1 910 1349 1184 4009 current 22 0 1 22 0 1 current	 history1 history1	 history2 history2
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ADDITIVES 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	method ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 27 imit/base >25 >20 imit/base >3 >20 >30	current 7 0 68 <1 910 1349 1184 4009 current 22 0 1 current 0.2 7.2 17.4	 history1 history1	 history2 history2 history2



Sep22/23

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Certificate L2367