

OIL ANALYSIS REPORT

Sample Rating Trend





Area **Ewing Hauling** Machine Id MACK 6707 Component

Diesel Engine

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

DIAGNOOIO

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.

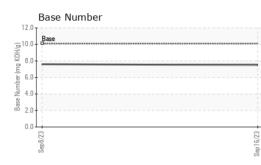
Fluid Condition

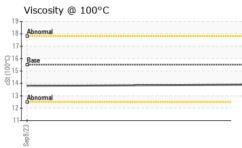
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

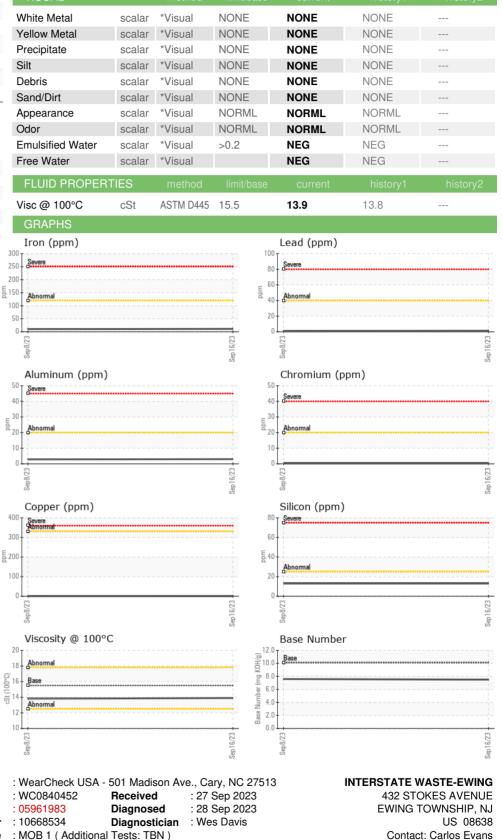
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0840452	WC0840445	
Sample Date		Client Info		16 Sep 2023	08 Sep 2023	
Machine Age	hrs	Client Info		14358	14287	
Oil Age	hrs	Client Info		450	150	
Oil Changed		Client Info		Changed	Filtered	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	11	10	
Chromium	ppm	ASTM D5185m	>20	<1	<1	
Nickel	ppm	ASTM D5185m	>5	0	0	
Titanium	ppm	ASTM D5185m	>2	0	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm		>20	3	3	
Lead	ppm	ASTM D5185m	>40	1	<1	
Copper	ppm		>330	<1	<1	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		0	<1	
Cadmium	ppm	ASTM D5185m		0	0	
			11 11 11			le'sterro 0
ADDITIVES		method	limit/base	current	historv1	nistorv2
ADDITIVES Boron	maa	method ASTM D5185m	limit/base	current	history1 13	history2
Boron	ppm ppm	ASTM D5185m	limit/base	12	13	
Boron Barium	ppm	ASTM D5185m ASTM D5185m		12 0	13 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	12 0 66	13 0 65	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		12 0 66 <1	13 0 65 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000	12 0 66 <1 842	13 0 65 <1 831	
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66	12 0 66 <1	13 0 65 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150	12 0 66 <1 842 1354 1065	13 0 65 <1 831 1393 1034	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050	12 0 66 <1 842 1354	13 0 65 <1 831 1393	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150	12 0 66 <1 842 1354 1065 1307	13 0 65 <1 831 1393 1034 1286	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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	66 1000 1050 1150 1270	12 0 66 <1 842 1354 1065 1307 3596	13 0 65 <1 831 1393 1034 1286 3951	
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 ASTM D5185m	66 1000 1050 1150 1270 limit/base	12 0 66 <1 842 1354 1065 1307 3596 current 13	13 0 65 <1 831 1393 1034 1286 3951 history1 13	
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	66 1000 1050 1150 1270 limit/base >25	12 0 66 <1 842 1354 1065 1307 3596	13 0 65 <1 831 1393 1034 1286 3951 history1	 history2
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	66 1000 1050 1150 1270 limit/base >25	12 0 66 <1 842 1354 1065 1307 3596 current 13 3	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3	 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	66 1000 1050 1150 1270 limit/base >25 >20	12 0 66 <1 842 1354 1065 1307 3596 current 13 3 2 2	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3 3 3	 history2 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	ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >20	12 0 66 <1 842 1354 1065 1307 3596 <u>current</u> 13 3 2 <u>current</u> 0.3	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3 3 3 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	ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >4 >20	12 0 66 <1 842 1354 1065 1307 3596 current 13 3 2 current 0.3 8.9	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3 3 3 history1 0.3 8.1	 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	66 1000 1050 1150 1270 iinit/base >25 >20 iinit/base >4 >20 >30	12 0 66 <1 842 1354 1065 1307 3596 <u>current</u> 13 3 2 <u>current</u> 0.3 8.9 19.7	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3 3 3 history1 0.3 8.1 19.0	 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 D7844	66 1000 1050 1150 1270 225 >20 imit/base >4 >20 >30 imit/base	12 0 66 <1 842 1354 1065 1307 3596 current 13 3 2 current 0.3 8.9 19.7 current	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3 3 3 history1 0.3 8.1 19.0 history1	 history2 history2 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 D7614	66 1000 1050 1150 1270 225 20 limit/base >20 limit/base >30 limit/base	12 0 66 <1 842 1354 1065 1307 3596 <u>current</u> 13 3 2 <u>current</u> 0.3 8.9 19.7	13 0 65 <1 831 1393 1034 1286 3951 history1 13 3 3 3 history1 0.3 8.1 19.0	 history2 history2 history2



OIL ANALYSIS REPORT







 Unique Number
 : 10668534
 Diagnostician
 : Wes Davis

 Certificate L2367
 Test Package
 : MOB 1 (Additional Tests: TBN)

 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)

Laboratory

Sample No.

Lab Number

CEvans@interstatewaste.com

T:

F: