

OIL ANALYSIS REPORT

Ewing Hauling **PETERBILT 2605**

Component **Diesel Engine**

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

Recommendation

Resample at the next service interval to monitor.

Wear

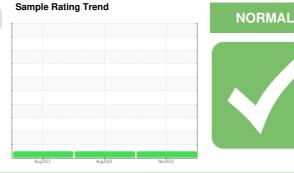
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

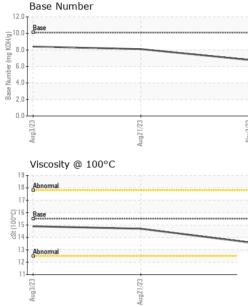
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

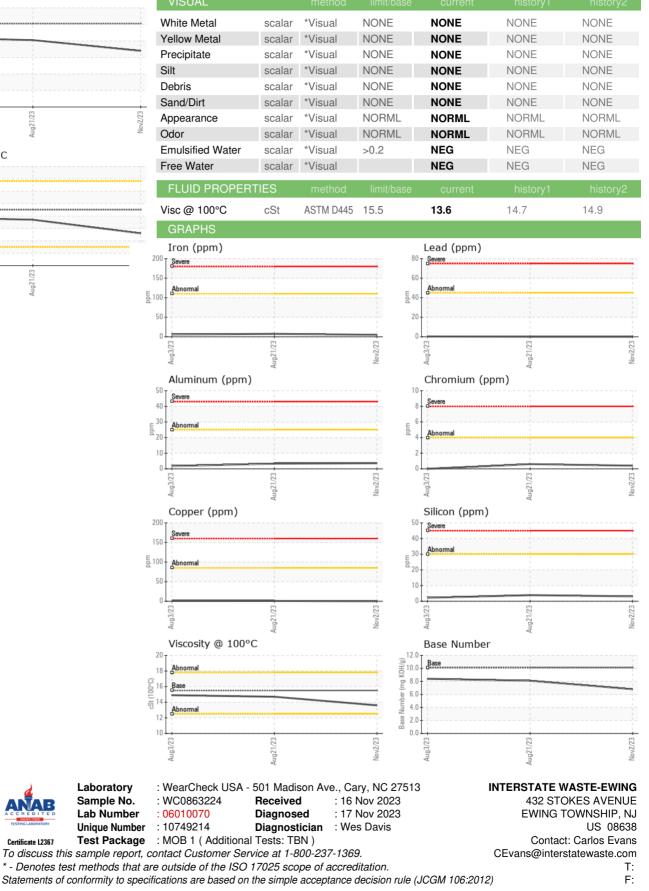


SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0863224	WC0840497	WC0830846
Sample Date		Client Info		02 Nov 2023	21 Aug 2023	03 Aug 2023
Machine Age	hrs	Client Info		7597	7157	7056
Oil Age	hrs	Client Info		450	450	150
Oil Changed		Client Info		Changed	Changed	Filtered
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	5	7	6
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	_	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	4	3	2
Lead	ppm	ASTM D5185m	>45	0	0	<1
Copper	ppm	ASTM D5185m	>85	0	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	0
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	current 4	history1 5	history2 5
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base 66	4	5	5
Boron Barium	ppm	ASTM D5185m ASTM D5185m		4 0	5 0	5
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		4 0 59	5 0 72	5 2 70
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66	4 0 59 <1 589 1454	5 0 72 0	5 2 70 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000	4 0 59 <1 589	5 0 72 0 1179	5 2 70 0 912
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	66 1000 1050 1150	4 0 59 <1 589 1454 968 1173	5 0 72 0 1179 1456 1179 1498	5 2 70 0 912 1304 1068 1271
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	66 1000 1050 1150	4 0 59 <1 589 1454 968	5 0 72 0 1179 1456 1179	5 2 70 0 912 1304 1068
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	4 0 59 <1 589 1454 968 1173	5 0 72 0 1179 1456 1179 1498	5 2 70 0 912 1304 1068 1271
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	66 1000 1050 1150 1270 limit/base	4 0 59 <1 589 1454 968 1173 3042	5 0 72 0 1179 1456 1179 1498 4226	5 2 70 0 912 1304 1068 1271 3363
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	66 1000 1050 1150 1270 limit/base	4 0 59 <1 589 1454 968 1173 3042 current	5 0 72 0 1179 1456 1179 1498 4226 history1	5 2 70 0 912 1304 1068 1271 3363 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 ASTM D5185m	66 1000 1050 1150 1270 limit/base >30	4 0 59 <1 589 1454 968 1173 3042 current 3	5 0 72 0 1179 1456 1179 1498 4226 history1 4	5 2 70 0 912 1304 1068 1271 3363 history2 2
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 method ASTM D5185m	66 1000 1050 1150 1270 limit/base >30	4 0 59 <1 589 1454 968 1173 3042 current 3 0	5 0 72 0 1179 1456 1179 1498 4226 history1 4 1	5 2 70 0 912 1304 1068 1271 3363 history2 2 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 >20 limit/base	4 0 59 <1 589 1454 968 1173 3042 <u>current</u> 3 0 2	5 0 72 0 1179 1456 1179 1498 4226 history1 4 1 2	5 2 70 0 912 1304 1068 1271 3363 history2 2 0 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm	ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 >20 limit/base >3	4 0 59 <1 589 1454 968 1173 3042 <u>current</u> 3 0 2 2	5 0 72 0 1179 1456 1179 1498 4226 history1 4 1 2 2 history1	5 2 70 0 912 1304 1068 1271 3363 history2 2 0 4 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm	ASTM D5185m ASTM D5185m	66 1000 1050 1150 1270 limit/base >30 20 limit/base >3 >20	4 0 59 <1 589 1454 968 1173 3042 current 3 0 2 2 current 0.3	5 0 72 0 1179 1456 1179 1498 4226 history1 4 1 2 <u>history1</u> 0.3	5 2 70 0 912 1304 1068 1271 3363 history2 2 0 4 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	66 1000 1050 1150 1270 limit/base >30 20 limit/base >3 >20	4 0 59 <1 589 1454 968 1173 3042 <i>current</i> 3 0 2 <i>current</i> 0.3 8.1	5 0 72 0 1179 1456 1179 1498 4226 history1 4 1 2 <u>history1</u> 0.3 7.5	5 2 70 0 912 1304 1068 1271 3363 history2 2 0 4 history2 0.3 7.0
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 imit/base >30 imit/base >3 >20 >30	4 0 59 <1 589 1454 968 1173 3042 <u>current</u> 3 0 2 2 <u>current</u> 0.3 8.1 19.5	5 0 72 0 1179 1456 1179 1498 4226 history1 4 1 2 <u>history1</u> 0.3 7.5 18.7	5 2 70 0 912 1304 1068 1271 3363 history2 2 0 4 <i>history2</i> 0.3 7.0 18.9



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Certificate L2367

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