

# **OIL ANALYSIS REPORT**

Sample Rating Trend





Machine Id MACK 120062-SW8001 Diesel Engine

Fluid MOBIL DELVAC ELITE 15W40 (--- GAL)

DIAGNOSIS	

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 INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0095465	GFL0095479	
Sample Date		Client Info		07 Mar 2024	20 Dec 2023	
Machine Age	hrs	Client Info		5434	4887	
Oil Age	hrs	Client Info		0	500	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	0	2	
Chromium	ppm	ASTM D5185m	>20	<1	0	
Nickel	ppm	ASTM D5185m	>5	<1	0	
Titanium	ppm	ASTM D5185m	>2	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>20	3	3	
Lead	ppm	ASTM D5185m	>40	<1	0	
Copper	ppm	ASTM D5185m	>330	<1	<1	
Tin	ppm	ASTM D5185m	>15	<1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
					0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base		-	history2
		method	limit/base	current	history1	
Boron	ppm	method ASTM D5185m	limit/base	current 123	history1 104	
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 123 0	history1 104 <1	
Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 123 0 124	history1 104 <1 109	
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 123 0 124 <1	history1 104 <1 109 0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 123 0 124 <1 648	history1 104 <1 109 0 635	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           123           0           124           <1           648           1336	history1 104 <1 109 0 635 1148	   
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	limit/base	Current 123 0 124 <1 648 1336 742	history1 104 <1 109 0 635 1148 683	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current           123           0           124           <1           648           1336           742           865	history1 104 <1 109 0 635 1148 683 759	
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 ASTM D5185m ASTM D5185m	limit/base	Current 123 0 124 <1 648 1336 742 865 3693	history1           104           <1           109           0           635           1148           683           759           3011	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm 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	limit/base	123         0         124         <1         648         1336         742         865         3693         current	history1 104 <1 109 0 635 1148 683 759 3011 history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b>	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25	current           123           0           124           <1           648           1336           742           865           3693           current           4	history1           104           <1           109           0           635           1148           683           759           3011           history1           3	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	limit/base >25	current           123           0           124           <1           648           1336           742           865           3693           current           4           1	history1         104         <1         109         0         635         1148         683         759         3011         history1         3         2         2         history1	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base >25 >20	current         123         0         124         <1         648         1336         742         865         3693         current         4         1         5         current         0.1	history1         104         <1         109         0         635         1148         683         759         3011         history1         3         2         history1         0.1	     history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base >25 >20 limit/base	current         123         0         124         <1         648         1336         742         865         3693         current         4         1         5         current	history1         104         <1         109         0         635         1148         683         759         3011         history1         3         2         2         history1	      history2    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	limit/base >25 >20 limit/base >4	current         123         0         124         <1         648         1336         742         865         3693         current         4         1         5         current         0.1	history1         104         <1         109         0         635         1148         683         759         3011         history1         3         2         history1         0.1	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	limit/base >25 >20 limit/base >4 >20	current         123         0         124         <1         648         1336         742         865         3693         current         4         1         5         current         0.1         8.2	history1         104         <1         109         0         635         1148         683         759         3011         history1         3         2         history1         0.1         8.7	      history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	Imit/base >25 >20 Imit/base >20 Salaria >4 >20 >30	current         123         0         124         <1         648         1336         742         865         3693         current         4         1         5         current         0.1         8.2         17.7	history1         104         <1         109         0         635         1148         683         759         3011         history1         3         2         history1         0.1         8.7         17.7	     history2  history2  history2  history2



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Submitted By: MICHAEL KAY