

# **OIL ANALYSIS REPORT**



Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

# DIAGNOSIS

Area [7503] Machine Id 1487M

### Recommendation

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.

# Wear

Metal levels are typical for a new component breaking in.

#### Contamination

Light fuel dilution occurring. No other contaminants were detected in the oil.

# Fluid Condition

Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0796215		
Sample Date		Client Info		30 Jul 2023		
Machine Age	kms	Client Info		5613		
Oil Age	kms	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				ABNORMAL		
CONTAMINATION	١	method	limit/base	current	history1	history2
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	21		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	<1		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>40	0		
Copper	ppm	ASTM D5185(m)	>330	1		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	250	50		
Barium	ppm	ASTM D5185(m)	10	<1		
Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)	10 100	<1 6		
Molybdenum	ppm	ASTM D5185(m)		6		
Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m)	100	6 0		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450	6 0 632		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000	6 0 632 1419		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150	6 0 632 1419 702		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350	6 0 632 1419 702 812	  	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350	6 0 632 1419 702 812 2450	   	   
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350 4250	6 0 632 1419 702 812 2450 <1	   	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350 4250 limit/base	6 0 632 1419 702 812 2450 <1 current	     history1	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350 4250 limit/base >25	6 0 632 1419 702 812 2450 <1 current 6	     history1	    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm of the second secon	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350 4250 limit/base >25 >158 >20	6 0 632 1419 702 812 2450 <1 current 6 3	     history1	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350 4250 limit/base >25 >158 >20	6 0 632 1419 702 812 2450 <1 current 6 3 3	     history1	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 1350 4250 imit/base >25 >158 >20 >5	6 0 632 1419 702 812 2450 <1 current 6 3 3 1.9	     history1   	     history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm   ppm   %	ASTM D5185(m) ASTM D7593*	100 450 3000 1150 4250 imit/base >25 >158 >20 >5 imit/base >3	6 0 632 1419 702 812 2450 <1 current 6 3 3 1.9 current 0.5	     history1     i history1	     history2    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	100 450 3000 1150 4250 imit/base >25 >158 >20 >5 imit/base >3	6 0 632 1419 702 812 2450 <1 current 6 3 3 1.9 current	     history1     history1	     history2    history2  
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844* ASTM D7844*	100 450 3000 1150 1350 4250 imit/base >25 >158 >20 >5 imit/base >3 >20	6 0 632 1419 702 812 2450 <1 current 6 3 3 1.9 current 0.5 10.8	     history1    history1  	     history2    history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7593* ASTM D7593*	100 450 3000 1150 1350 4250 iimit/base >25 >158 >20 >5 iimit/base >3 >20 >3 >20	6 0 632 1419 702 812 2450 <1 current 6 3 3 1.9 current 0.5 10.8 22.3	       history1    history1  history1	      history2    history2

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