

### **OIL ANALYSIS REPORT**

# **EG - TRUCK-ON-HWY-LIGHT DUTY** 06.106 [EG - TRUCK-ON-HWY-LIGHT DUTY]

**Diesel Engine** 

Fluid MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

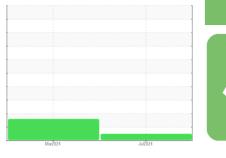
All component wear rates are normal.

#### 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 Rating Trend



NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0935248	WC0908782	
Sample Date		Client Info		10 Jul 2024	13 Mar 2024	
Machine Age	mls	Client Info		1214	5000	
Oil Age	mls	Client Info		500	5000	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	ABNORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method	20.L	NEG	NEG	
-				-		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	43	44	
Chromium	ppm	ASTM D5185m	>20	1	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	4	9	
Lead	ppm	ASTM D5185m	>40	0	0	
Copper	ppm	ASTM D5185m	>330	11	56	
Tin	ppm	ASTM D5185m	>15	0	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	37	244	
Barium	ppm	ASTM D5185m	0	1	7	
Molybdenum						
	ppm	ASTM D5185m	0	50	123	
Manganese	ppm ppm	ASTM D5185m ASTM D5185m	0	50 2	123 3	
Manganese Magnesium		ASTM D5185m	0			
-	ppm	ASTM D5185m		2	3	
Magnesium	ppm ppm	ASTM D5185m ASTM D5185m		2 513	3 712	
Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		2 513 1722	3 712 1524	
Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		2 513 1722 700	3 712 1524 748	 
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		2 513 1722 700 851	3 712 1524 748 879	
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 limit/base	2 513 1722 700 851 2637	3 712 1524 748 879 2650	  
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	0 limit/base	2 513 1722 700 851 2637 current	3 712 1524 748 879 2650 history1	  
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	0 limit/base >25	2 513 1722 700 851 2637 current 15	3 712 1524 748 879 2650 history1 ▲ 38	    history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	0 limit/base >25	2 513 1722 700 851 2637 current 15 5	3 712 1524 748 879 2650 history1 ▲ 38 4	   history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0   	2 513 1722 700 851 2637 current 15 5 7 7 current	3 712 1524 748 879 2650 history1 ▲ 38 4 16	    history2 
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D51854	0 limit/base >25 >20 limit/base >3	2 513 1722 700 851 2637 current 15 5 7 7 current 0.5	3 712 1524 748 879 2650 history1 ▲ 38 4 16 history1 0.3	   history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	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	0 limit/base >25 >20 limit/base	2 513 1722 700 851 2637 current 15 5 7 7 current	3 712 1524 748 879 2650 history1 ▲ 38 4 16 history1	    history2   history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0   	2 513 1722 700 851 2637 current 15 5 7 7 current 0.5 12.6	3 712 1524 748 879 2650 history1 ▲ 38 4 16 history1 0.3 10.5	   history2   history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm 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 *ASTM D7844 *ASTM D7624 *ASTM D7415	0 1 1 1 2 2 2 1 1 1 1 2 0 1 1 1 1 2 0 1 1 1 1 2 0 1 1 1 1 1 1 1 1 1 1 1 1 1	2 513 1722 700 851 2637 current 15 5 7 current 0.5 12.6 24.7 current	3 712 1524 748 879 2650 history1 38 4 16 0.3 10.5 23.9 history1	   history2  history2
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	0 limit/base >25 >20 limit/base >3 >20 >30	2 513 1722 700 851 2637 current 15 5 7 current 0.5 12.6 24.7	3 712 1524 748 879 2650 history1 ▲ 38 4 16 history1 0.3 10.5 23.9	   history2   history2  history2  history2



40 35 30 Abs/cm Abno 20 15. 10 Mar13/24

10.0 Base

0.0 Mar13/24

18 T 17. Abnormal 16. (0-001) 14 Base 13

> 12 11 Mar13/24

## **OIL ANALYSIS REPORT**

	VISUAL		method	limit/base	current	history1	history2
Oxidation	White Metal	scalar	*Visual	NONE	NONE	NONE	
Sulfation	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
bnormal	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	-	scalar	*Visual	NORML	NORML	NORML	
	Appearance Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Wate		*Visual	>0.2	NEG	NEG	
ase Number <sub>ase</sub>	Free Water	scalar	*Visual	- 0.2	NEG	NEG	
	FLUID PROP		method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445		13.3	13.1	
	GRAPHS	001					
	Ferrous Alloys	5					
	45 T						
	40 iron						
	35 - 35 - 30 - 30 - 30 - 30 - 30 - 30 -	J					
scosity @ 100°C	s0 + − − − − − − − − − − − − − − − − − −						
505KY @ 100 C	E 20						
noma	15						
nomal	10						
89	5						
\$8 	0			124			
nomal	Mar13/24			Jul10/24			
	Non-ferrous №	1etals					
	60 T	istuis					
	50 - copper						
	ssssssss tin						
	40						
	톮 30 -						
	<u>a</u>						
	20 -						
	20 -			/			
				/			
	20 10 0			54			
	20 10 472E1 #			ul10/24			
	20 10 6762 Jaw	2000		Jul10/24			
	20 10 472E1 #	00°C		۲ 	Base Number		
	20 10 0 Viscosity @ 1	00°C			Base Number		
	20 10 Viscosity @ 11 18 17 Abnomal	00°C					
	20 10 0 4725 W Viscosity @ 11 18 17 Abnormal	00°C					
	20 10 0 4725 W Viscosity @ 11 18 17 Abnormal	D0°C					
	20 10 Viscosity @ 1 Abnormal	00°C					
	20 10 Viscosity @ 1	00°C					
	20 10 0 FCC 12 Viscosity @ 11 18 16 4 4 5 5 10 16 5 10 10 10 10 10 10 10 10 10 10	D0°C		Ť			
	20 10 Viscosity @ 1	00°C					
	20 10 Viscosity @ 10 16 20 Viscosity @ 10 16 20 10 10 10 10 10 10 10 10 10 1	00°C		-5 10.0 (0,0HOX (0,0HOX (0,0HOX (0,0HOX) (0,0HOX	Base		
	20 10 Viscosity @ 1	D0°C		-5 10.0 (0, 8.0 HOX But, 10, 6.0 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,			
Certificate L2367 Test Page	viscosity @ 1	- 501 Madiso Rece Teste Diagr nal Tests: TBI	ived :15 ed :16 nosed :16 N)	5, NC 27513 5 Jul 2024 Jul 2024 - Don	Base 0 0 0 0 0 0 0 0 0 0 0 0 0	/OOD CONSTRL 3219 V Contact:	

Submitted By: SHAWN SOUTH Page 2 of 2