

OIL ANALYSIS REPORT



Machine Id

SZLG233083

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

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

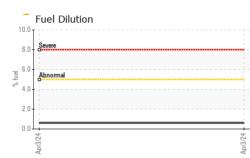
Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0905048		
Sample Date		Client Info		03 Apr 2024		
Machine Age	hrs	Client Info		513		
Oil Age	hrs	Client Info		513		
Oil Changed		Client Info		Changed		
Sample Status				ATTENTION		
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	nnm	ASTM D5185m	>100	5		
Chromium	ppm ppm	ASTM D5185m	>20	ر 1		
Nickel	ppm	ASTM D5185m	>4	0		
Titanium	ppm	ASTM D5185m	77	0		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	3		
Lead	ppm	ASTM D5185m	>40	0		
Copper	ppm	ASTM D5185m	>330	4		
Tin	ppm	ASTM D5185m	>15	0		
Vanadium	ppm	ASTM D5185m	210	0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES	1-1-	method	limit/base	ourront	history1	history2
				current		
Boron	ppm	ASTM D5185m	250	162 1		
Distantion of the second se						
Barium	ppm	ASTM D5185m	10			
Molybdenum	ppm	ASTM D5185m	10 100	65		
Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m	100	65 1		
Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	100 450	65 1 446		
Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000	65 1 446 1866		
Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150	65 1 446 1866 1097		
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	100 450 3000 1150 1350	65 1 446 1866 1097 1279	 	
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	100 450 3000 1150 1350 4250	65 1 446 1866 1097 1279 4215	 	
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 method	100 450 3000 1150 1350 4250 limit/base	65 1 446 1866 1097 1279	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25	65 1 446 1866 1097 1279 4215 current 4	 	
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 Limit/base >25 >158	65 1 446 1866 1097 1279 4215 current 4 4	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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	100 450 3000 1150 1350 4250 limit/base >25 >158 >20	65 1 446 1866 1097 1279 4215 <u>current</u> 4 4 4 4	 history1	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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	100 450 3000 1150 1350 4250 Limit/base >25 >158	65 1 446 1866 1097 1279 4215 current 4 4	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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	100 450 3000 1150 1350 4250 limit/base >25 >158 >20	65 1 446 1866 1097 1279 4215 <u>current</u> 4 4 4 4	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5	65 1 446 1866 1097 1279 4215 current 4 4 4 4 4 5 1 0.6	 history1 	 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D5185m	100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5 limit/base >3	65 1 446 1866 1097 1279 4215 <u>current</u> 4 4 4 4 <1 0.6 <u>current</u>	 history1 history1	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 method *ASTM D7844	100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5 limit/base >3	65 1 446 1866 1097 1279 4215 current 4 4 4 4 <1 0.6 current 0.1	 history1 history1 	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D3524 method *ASTM D7844 *ASTM D7844	100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5 limit/base >3 >20	65 1 446 1866 1097 1279 4215 current 4 4 4 4 <1 0.6 current 0.1 5.2	 history1 history1 	 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185m ASTM D51854 ASTM D3524	100 450 3000 1150 1350 4250 limit/base >25 >158 >20 >5 limit/base >3 >20 >3	65 1 446 1866 1097 1279 4215 Current 4 4 4 4 4 -1 0.6 Current 0.1 5.2 18.8	 history1 history1 history1	 history2 history2 history2
Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm % % Abs/cm Abs/cm	ASTM D5185m ASTM D3524 method *ASTM D78444 *ASTM D7624 *ASTM D7415	100 450 3000 1150 1350 4250 imit/base >25 >158 >20 >5 imit/base >3 >20 >30 imit/base >20	65 1 446 1866 1097 1279 4215 current 4 4 4 4 -1 0.6 current 0.1 5.2 18.8 current	 history1 history1 history1	 history2 history2 history2 history2

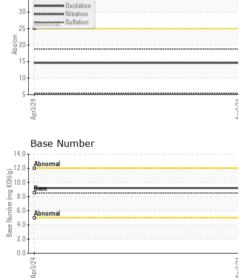


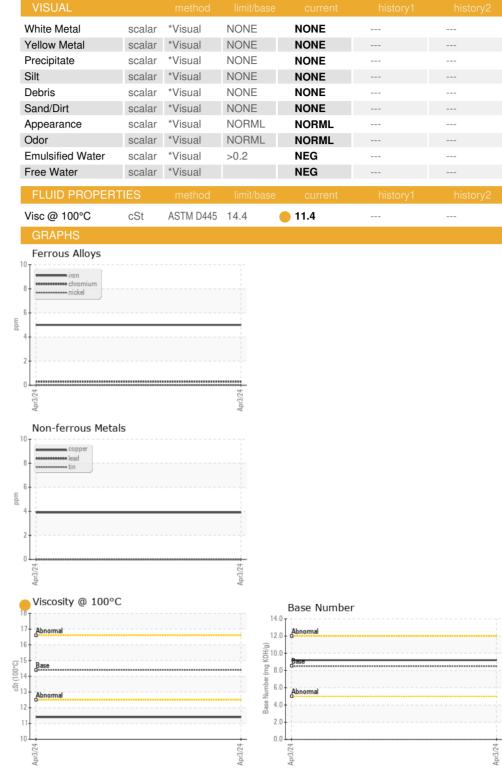
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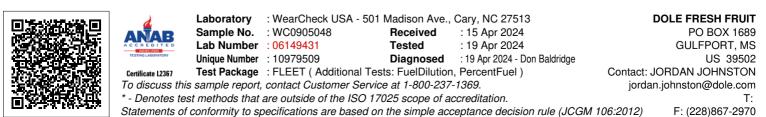


FT-IR (Direct Trend)

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Contact/Location: JORDAN JOHNSTON - DOLGUL