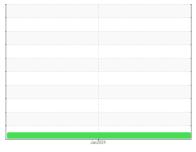


OIL ANALYSIS REPORT

Sample Rating Trend







Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Area TRUCK

1130T

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.

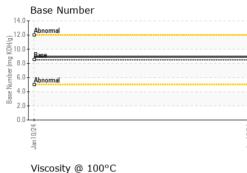
Fluid Condition

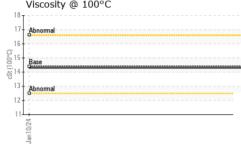
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RLB0000024		
Sample Date		Client Info		10 Jan 2024		
Machine Age	mls	Client Info		570960		
Oil Age	mls	Client Info		10000		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	٨	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	107		
Chromium	ppm	ASTM D5185m	>5	6		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m	>2	<1		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>20	9		
Lead	ppm	ASTM D5185m	>150	6		
Copper	ppm	ASTM D5185m	>90	2		
Tin	ppm	ASTM D5185m	>5	1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250	current 3	history1	history2
	ppm ppm					
Boron		ASTM D5185m	250	3		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	3 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	3 0 60		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	3 0 60 2		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	3 0 60 2 931		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	3 0 60 2 931 1064	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	3 0 60 2 931 1064 1016	 	
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	250 10 100 450 3000 1150 1350	3 0 60 2 931 1064 1016 1269	 	
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	250 10 100 450 3000 1150 1350 4250	3 0 60 2 931 1064 1016 1269 2962		
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 ASTM D5185m	250 10 100 450 3000 1150 1350 4250	3 0 60 2 931 1064 1016 1269 2962 current	 history1	 history2
Boron Barium 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 ASTM D5185m ASTM D5185m method	250 10 100 450 3000 1150 1350 4250 limit/base >35	3 0 60 2 931 1064 1016 1269 2962 current 33	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >35 >216	3 0 60 2 931 1064 1016 1269 2962 current 33 4 6 current	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >35 >216 >20	3 0 60 2 931 1064 1016 1269 2962 <i>current</i> 33 4 6 <i>current</i>	 history1 	 history2
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	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 Imit/base >35 >216 >20 Imit/base	3 0 60 2 931 1064 1016 1269 2962 <i>current</i> 33 4 6 <i>current</i> 3 10.3	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >216 >20 limit/base	3 0 60 2 931 1064 1016 1269 2962 <i>current</i> 33 4 6 <i>current</i>	 history1 history1 	 history2 history2
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	250 10 100 450 3000 1150 1350 4250 imit/base >35 >216 >20 imit/base >7.5 >20	3 0 60 2 931 1064 1016 1269 2962 <i>current</i> 33 4 6 <i>current</i> 3 10.3	 history1 history1 history1	 history2 history2
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	250 10 100 450 3000 1150 1350 4250 imit/base >216 >216 >20 imit/base >7.5 >20	3 0 60 2 931 1064 1016 1269 2962 current 33 4 6 <u>current</u> 3 10.3 24.9	 history1 history1 history1	 history2 history2 history2



OIL ANALYSIS REPORT





	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
24	Appearance	scalar	*Visual	NORML	NORML		
Jan 10/24	Odor			NORML			
~		scalar	*Visual		NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
	FLUID PROPER	RTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	14.4	14.3		
	GRAPHS						
	Ferrous Alloys						
	120 iron						
	100 - chromium						
	80						
	Ē 60						
	40 -						
	20 -						
	0						
	Jan 10/24			Jan 10/24			
	-			P			
	Non-ferrous Met	als					
	10 copper 1						
	8 -						
	8 - Research lead						
	6						
	8.						
	6						
	6						
				n10/24			
				Jan10/24			
	Viscosity @ 1000	2°C		Jan 10/24	Base Numbe	r	
	Viscosity @ 100°	2°C		14.	1	r	
	Viscosity @ 1000	°C			0	r	
	Viscosity @ 1000	°C		14.	0 0 - Abnormal	r	
	Viscosity @ 1000	°C		14.	0 Abnormal 0 Bace	r	
	Viscosity @ 1000	°C		14.	Abnomal	r	
	Viscosity @ 1000	°C		14.	Abnomal	r	
	Viscosity @ 1000	PC		14.	0 - Abnomal 0 - Base 0 - Abnomal Abnomal	r	
	Viscosity @ 1000	PC		14. 12. (b) HO HO X Bu Ja qu M	Abnormal	r	
	Viscosity @ 1000	PC		14. 12. (b)H10, 10, 10, 10, 10, 10, 10, 10,	Abnormal Abnormal Abnormal	r	
	Viscosity @ 1000	PC		14. 12. (b)H10, 10, 10, 10, 10, 10, 10, 10,	Abnormal Base Abnormal Abnormal	r	
	Viscosity @ 1000 Viscosity @ 1000 Base Abnormal 13 14 Abnormal 13	°C		14. 12. (0)(10. 0) (0)(10. 0) (0)(10. 0) (0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10. 0)(10.(10. 0)(10.(10. 0)(10.(10.(10.(10.(10.(10.(10.(10.(1	Abnormal Abnormal Abnormal	r	
	Viscosity @ 1000			14. 12. (0)HOX BU Base Munue Base Munue Control (0)HOX Bu Base Munue Control (0)HOX Bu Control (0)HOX Bu Base Munue Control (0)HOX Bu Control (0)HOX Bu Control (0)HOX Bu Control (0)HOX Bu Base Munue Control (0)HOX Bu Control (0)HOX Bu Co	Abnormal Bace Abnormal Abnormal Abnormal Abnormal Abnormal		
oratory	Viscosity @ 1000 Viscosity @ 1000 Abnomal Abnomal E E E E E E E E E E E E E	- 501 Madi		14. 12. (9)(10) 10) 10) 10) 10) 10) 10) 10)	Abnormal Bace Abnormal Abnormal Abnormal Abnormal Abnormal	CHAMLEY PIF	
oratory 1ple No.	Viscosity @ 1000	- 501 Madi Recieved	d : 30	14. 19. 19. 19. 19. 19. 19. 19. 19	Abnormal Bace Abnormal Abnormal Abnormal Abnormal Abnormal	CHAMLEY PIF 5228	134TH AVE N
oratory nple No. Number que Number	Viscosity @ 1000 Viscosity @ 1000 Abnomal Abnomal E : WearCheck USA - : RLB0000024 : 06074372	- 501 Madi	d : 30 ed : 01	14. 12. (9)(10) 10) 10) 10) 10) 10) 10) 10)	Abnormal Abnormal Abnormal Abnormal Abnormal Abnormal	CHAMLEY PIF 5228	PE & SALVAG 134TH AVE N WILLISTON, N US 588(



Test Package : FLEET Contact: CHRIS SCHROEDER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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