

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

ME-323 ME-323

**Diesel Engine** 

**DIESEL ENGINE OIL SAE 15W40 (--- GAL)** 

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Metal levels are typical for a components first oil change.

## Contamination

There is no indication of any contamination in the

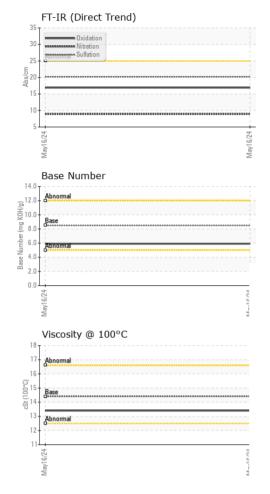
## **Fluid Condition**

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

Client Info					May/2024		
Sample Number   Client Info   WC0938467   Sample Date   Client Info   16 May 2024   Sample Date   Client Info   597   Sample Date   Client Info   597   Sample Status   Client Info   597   Sample Status   Client Info   N/A   Sample Status   CONTAMINATION   Method   NoRMAL   Sample Status   CONTAMINATION   Method   NoRMAL   Sample Status   CONTAMINATION   Method   NoRMAL   Sample Status   Sample							
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		WC0938467		
Oil Changed	Sample Date		Client Info		16 May 2024		
Coli   Changed   Client Info   N/A	Machine Age	hrs					
CONTAMINATION   method   limit/base   current   history1   history2	Oil Age	hrs	Client Info		597		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Changed		Client Info				
Water   WC Method   S5   C1.0   C1.	Sample Status				NORMAL		
Water Glycol         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         11             Chromium         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >40         3             Silver         ppm         ASTM D5185m         >40         3             Aluminum         ppm         ASTM D5185m         >40         3             Copper         ppm         ASTM D5185m         >15         0             Tin         ppm         ASTM D5185m         >10	CONTAMINATION	٧	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Water		WC Method	>0.2	NEG		
Irron	Glycol		WC Method		NEG		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	lron	ppm	ASTM D5185m	>100	11		
Titanium		ppm		>20	<1		
Silver	Nickel	ppm		>4	-		
Aluminum		ppm			_		
Lead		ppm	ASTM D5185m	>3	0		
Copper		ppm			-		
Tin		ppm	ASTM D5185m				
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         250         143             Barium         ppm         ASTM D5185m         10         0             Molybdenum         ppm         ASTM D5185m         100         68             Manganese         ppm         ASTM D5185m         100         68             Magnesium         ppm         ASTM D5185m         450         92             Magnesium         ppm         ASTM D5185m         3000         2335             Calcium         ppm         ASTM D5185m         3000         2335             Phosphorus         ppm         ASTM D5185m         1350         1254             Sulfur         ppm         ASTM D5185m         >25         5							
ADDITIVES				>15			
ADDITIVES							
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         100         68             Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         450         92             Calcium         ppm         ASTM D5185m         3000         2335             Phosphorus         ppm         ASTM D5185m         1150         1025             Zinc         ppm         ASTM D5185m         1350         1254             Sulfur         ppm         ASTM D5185m         4250         4967             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base	Boron	ppm	ASTM D5185m	250	143		
Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         450         92             Calcium         ppm         ASTM D5185m         3000         2335             Phosphorus         ppm         ASTM D5185m         1150         1025             Zinc         ppm         ASTM D5185m         1350         1254             Sulfur         ppm         ASTM D5185m         4250         4967             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >158         2             Potassium         ppm         ASTM D5185m         >20         <1	Barium	ppm	ASTM D5185m	10	0		
Magnesium         ppm         ASTM D5185m         450         92             Calcium         ppm         ASTM D5185m         3000         2335             Phosphorus         ppm         ASTM D5185m         1150         1025             Zinc         ppm         ASTM D5185m         1350         1254             Sulfur         ppm         ASTM D5185m         4250         4967             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >158         2             Potassium         ppm         ASTM D5185m         >20         <1	Molybdenum	ppm		100			
Calcium         ppm         ASTM D5185m         3000         2335             Phosphorus         ppm         ASTM D5185m         1150         1025             Zinc         ppm         ASTM D5185m         1350         1254             Sulfur         ppm         ASTM D5185m         4250         4967             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >158         2             Potassium         ppm         ASTM D5185m         >20         <1		ppm	ASTM D5185m		0		
Phosphorus         ppm         ASTM D5185m         1150         1025             Zinc         ppm         ASTM D5185m         1350         1254             Sulfur         ppm         ASTM D5185m         4250         4967             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >158         2             Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/:nm         *ASTM D7624         >20         8.9             Sulfation         Abs/:nm         *ASTM D7415         >30         20.2             FLUID DEGRADATION         method <t< td=""><td></td><td>ppm</td><td></td><td></td><th></th><td></td><td></td></t<>		ppm					
Zinc		ppm	ASTM D5185m	3000			
Sulfur         ppm         ASTM D5185m         4250         4967             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >158         2             Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/.1mm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         16.9		ppm					
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >158         2             Potassium         ppm         ASTM D5185m         >20         <1		ppm					
Silicon   ppm   ASTM D5185m   >25   5	Sulfur	ppm	ASTM D5185m	4250	4967		
Sodium	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         <1             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.2             Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         16.9	Silicon	ppm	ASTM D5185m	>25	5		
INFRA-RED	Sodium	ppm	ASTM D5185m	>158	2		
Soot %         %         *ASTM D7844 >3         0.2             Nitration         Abs/cm         *ASTM D7624 >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415 >30         20.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         16.9	Potassium	ppm	ASTM D5185m	>20	<1		
Nitration         Abs/cm         *ASTM D7624         >20         8.9             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         16.9	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         20.2             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         16.9	Soot %	%	*ASTM D7844	>3	0.2		
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 16.9	Nitration	Abs/cm	*ASTM D7624	>20	8.9		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 5.9	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.9		

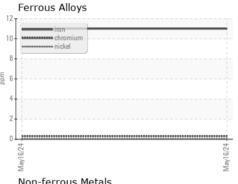


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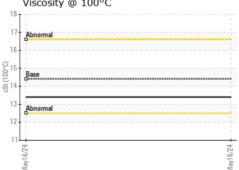


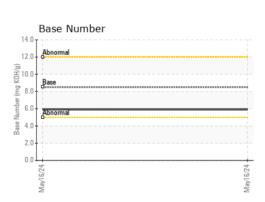
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	TIES	method	limit/base	current	history1	history2

I LOID I HOI LII	IIILO				
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	 



10	TO TOUR METALS
8	copper second fin
6	
Edd 4	
2	
0	
	May16/24
	Viscosity @ 100°C









Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0938467 Lab Number : 06193504

Received **Tested** Unique Number : 11050256 Diagnosed

: 29 May 2024 : 30 May 2024

: 30 May 2024 - Wes Davis

23769 STATE HWY 110 NORTH TROUP, TX US 75789 Contact: Forrest Howell

COVIA - TROUP - 084

forrest.howell@coviacorp.com T: (903)574-0693

Certificate 12367

Test Package : CONST ( Additional Tests: TBN ) 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)

Report Id: COVTRO [WUSCAR] 06193504 (Generated: 05/30/2024 13:43:42) Rev: 1

Contact/Location: Forrest Howell - COVTRO