

OIL ANALYSIS REPORT

LONGVIEW GEFCO 868-2

Right Diesel Engine

TULCO LUBSOIL CK-4 15W40 (30 GAL)

Sample Rating Trend



Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

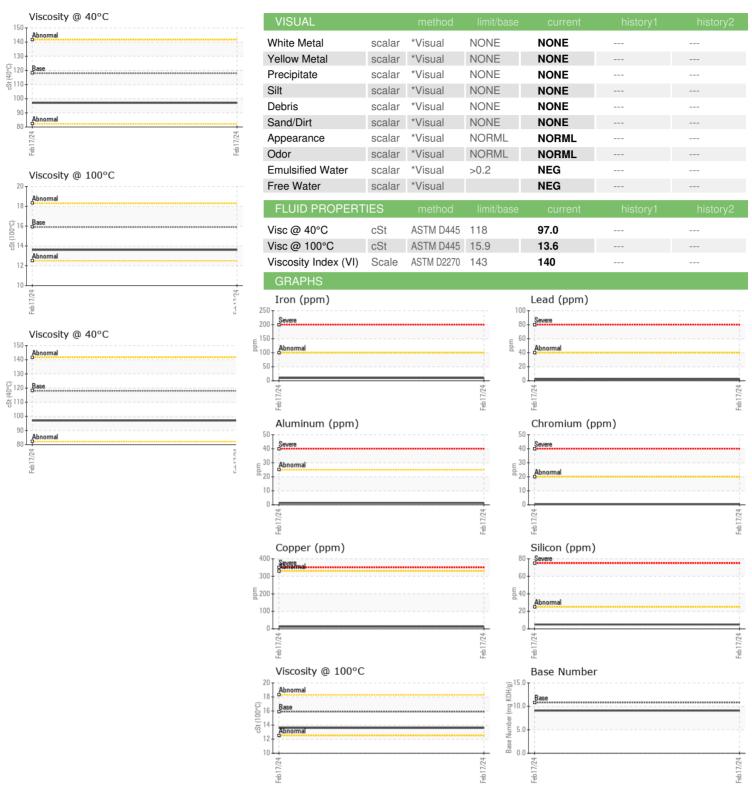
Fluid Condition

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

Comparison					Feb 2024		
Sample Date Client Info 17 Feb 2024	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 781 Coll Age hrs Client Info 781 Coll Changed hrs Client Info 781 Contaged Client Info Changed Contaged Client Info Contaged Client Info Changed Contaged Client Info Client Info Contaged Client Info Client Info .	Sample Number		Client Info		TO50002124		
Oil Age hrs Client Info 781	Sample Date		Client Info		17 Feb 2024		
Contament Cont	Machine Age	hrs	Client Info		13736		
CONTAMINATION method limit/base current history1 history2	Oil Age	hrs	Client Info		781		
CONTAMINATION method limit/base current history1 history2	Oil Changed		Client Info		Changed		
Fuel	Sample Status				NORMAL		
Water Glycol WC Method >0.2 NEG	CONTAMINATIO	N	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Water		WC Method	>0.2	NEG		
ASTM D5185m	Glycol		WC Method		NEG		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	10		
Silver	Chromium	ppm	ASTM D5185m	>20	<1		
Silver	Nickel	ppm	ASTM D5185m	>2	<1		
Aluminum	Titanium	ppm	ASTM D5185m	>2	<1		
Lead	Silver	ppm	ASTM D5185m	>2	<1		
Copper	Aluminum	ppm	ASTM D5185m	>25	1		
Tin	Lead	ppm	ASTM D5185m	>40	2		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 47 Barium ppm ASTM D5185m 5 Molybdenum ppm ASTM D5185m 65 66 Manganese ppm ASTM D5185m 1060 203 Magnesium ppm ASTM D5185m 1140 1689 Calcium ppm ASTM D5185m 1170 933 Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2	Copper	ppm	ASTM D5185m	>330	12		
ADDITIVES	Tin	ppm	ASTM D5185m	>15	2		
ADDITIVES	Vanadium	ppm	ASTM D5185m		<1		
Boron ppm ASTM D5185m 47 Barium ppm ASTM D5185m 5 Molybdenum ppm ASTM D5185m 65 66 Manganese ppm ASTM D5185m <1 Manganese ppm ASTM D5185m 1060 203 Manganesium ppm ASTM D5185m 1140 1689 Manganesium ppm ASTM D5185m 1170 933 Manganesium ppm ASTM D5185m 1230 1080 Manganesium ppm ASTM D5185m 1230 1080 Manganesium ppm ASTM D5185m 3130 4462 Manganesium ppm ASTM D5185m 3130 4462 Manganesium ppm ASTM D5185m >25 5 Manganesium ppm ASTM D5185m 25 5 Manganesium ppm ASTM D5185m 20 2 Manganesium ppm ASTM D5185m 20 2 Manganesium ppm ASTM D5185m 30 30 30 30 30 30 30 3	Cadmium	ppm	ASTM D5185m		<1		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 65 66 Manganese ppm ASTM D5185m 1060 203 Calcium ppm ASTM D5185m 1060 203 Calcium ppm ASTM D5185m 1140 1689 Phosphorus ppm ASTM D5185m 1170 933 Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/ba	Boron	ppm	ASTM D5185m		47		
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 1060 203 Calcium ppm ASTM D5185m 1140 1689 Phosphorus ppm ASTM D5185m 1170 933 Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3	Barium	ppm	ASTM D5185m		5		
Magnesium ppm ASTM D5185m 1 060 203 Calcium ppm ASTM D5185m 1 140 1689 Phosphorus ppm ASTM D5185m 1170 933 Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Sulfation Abs/.1mm *ASTM D7415 </td <td>•</td> <td>ppm</td> <td>ASTM D5185m</td> <td>65</td> <th>66</th> <td></td> <td></td>	•	ppm	ASTM D5185m	65	66		
Calcium ppm ASTM D5185m 1140 1689 Phosphorus ppm ASTM D5185m 1170 933 Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m >20 2 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limi	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 1170 933 Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 <t< td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td>1060</td><th>203</th><td></td><td></td></t<>	Magnesium	ppm	ASTM D5185m	1060	203		
Zinc ppm ASTM D5185m 1230 1080 Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Calcium	ppm	ASTM D5185m	1140	1689		
Sulfur ppm ASTM D5185m 3130 4462 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Phosphorus	ppm	ASTM D5185m	1170	933		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	-	ppm	ASTM D5185m	1230	1080		
Silicon ppm ASTM D5185m >25 5 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Sulfur	ppm	ASTM D5185m	3130	4462		
Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	CONTAMINANTS	\$	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0		ppm		>25			
INFRA-RED	Sodium	ppm					
Soot % *ASTM D7844 >3 0.1 Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Potassium	ppm	ASTM D5185m	>20	2		
Nitration Abs/cm *ASTM D7624 >20 9.0 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Soot %	%	*ASTM D7844	>3	0.1		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.0	Nitration	Abs/cm	*ASTM D7624	>20	9.0		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3		
	FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 10.8 9.09	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0		
	Base Number (BN)	mg KOH/g	ASTM D2896	10.8	9.09		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number

Unique Number: 10896134

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : TO50002124 : 06097904

Received **Tested** Diagnosed

: 23 Feb 2024 : 23 Feb 2024 - Wes Davis

: 22 Feb 2024

Test Package : MOB 2 (Additional Tests: KV40, VI) 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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Submitted By: LESTER GRAY

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