

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id **TJ036526** Component **Diesel Engine** Fluid **SAE 15W40 (--- GAL)**

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

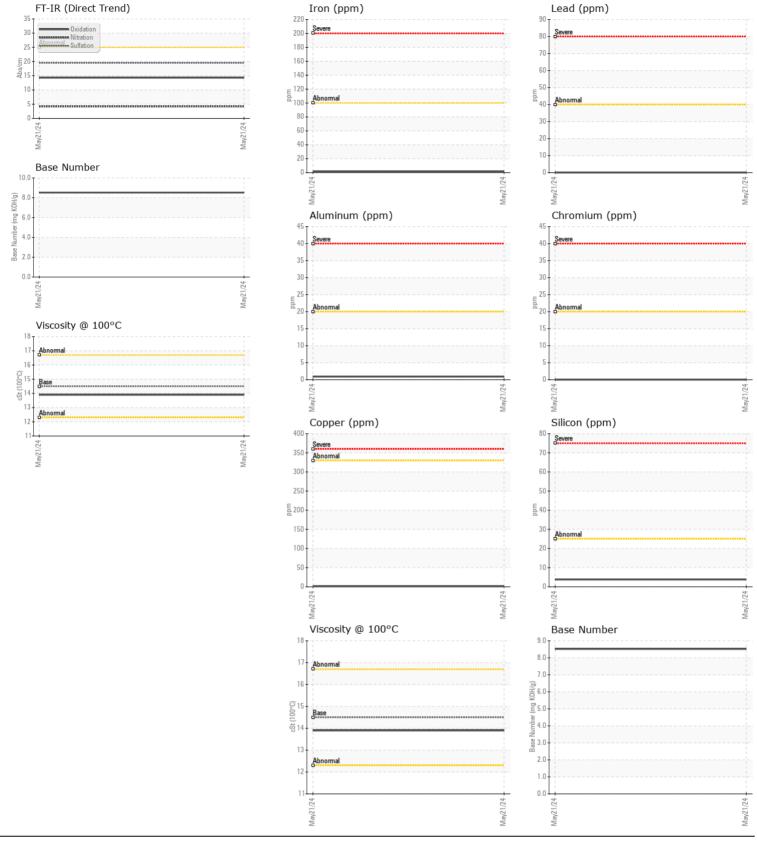
There is no indication of any contamination in the oil.

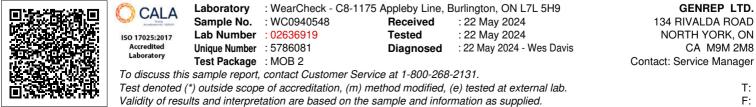
FLUID CONDITION

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

TestUOMMethodLimit/AmCurrentHistory1History2Sample NumberClient Info21 May 2024Machine AgehrsClient Info288Machine AgehrsClient Info0Filter AgehrsClient Info0Filter AgehrsClient InfoChangedFilter ChangedClient InfoChangedFilter ChangedClient InfoChangedSample StatusClient InfoChangedIronppmASTMD5185(m)>100NickelppmASTMD5185(m)>200NickelppmASTMD5185(m)>30AluminumppmASTMD5185(m)>301AluminumppmASTMD5185(m)>15<1VanadiumppmASTMD5185(m)>15<1SiliconppmASTMD5185(m)>200SiliconppmASTMD5185(m)>200SuffacionppmASTMD5185(m)>20ASuffacionppmASTMD5185(m)>20ASuffacionppmASTMD5185(m)>20A							
Sample DateClient Info21 May 2024Machine AgehrsClient Info288Oil AgehrsClient Info0Filter AgehrsClient InfoChangedOil ChangedClient InfoChangedFilter ChangedClient InfoChangedFilter ChangedClient InfoChangedSample StatusNORMALIronppmASTMD5185(m)>1002NickelppmASTMD5185(m)>200NickelppmASTMD5185(m)>30AluminumppmASTMD5185(m)>301AluminumppmASTMD5185(m)>20<1VanadiumppmASTMD5185(m)>200SiliconppmASTMD5185(m)>200SulfacionppmASTMD5185(m)>200SulfacionppmASTMD5185(m)>200SulfacionppmASTMD5185(m)>200SulfacionppmASTMD5185(m)>200SulfacionAbs/rm	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client Info 288 Oil Age hrs Client Info 0 Filter Age hrs Client Info Changed Oil Changed Client Info Changed Filter Changed Client Info Changed Sample Status V NORMAL Iron ppm ASTM D5185(m) >100 2 Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >30 0 Silver ppm ASTM D5185(m) >20 <1 Vanadium ppm ASTM D5185(m) >30 1 Silicon ppm ASTM D5185(m) >25 4 Sulfation ppm <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>WC0940548</th> <th></th> <th></th>	Sample Number		Client Info		WC0940548		
Oil Age hrs Client Info 0 Filter Age hrs Client Info Changed Oil Changed Client Info Changed Filter Changed Client Info Changed Sample Status NORMAL Iron ppm ASTM D5185(m) >100 2 Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >3 0 Silver ppm ASTM D5185(m) >3 0 Lead ppm ASTM D5185(m) >10 Vanadium ppm ASTM D5185(m) >25 4 Silicon ppm ASTM D5185(m) >25 4 Silicon ppm ASTM D5185(m) >20	Sample Date		Client Info		21 May 2024		
Filter Age hrs Client Info 0 Oil Changed Client Info Changed Filter Changed Client Info Changed Sample Status NORMAL Iron ppm ASTM D5185(m) >100 2 Nickel ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >20 0 Aluminum ppm ASTM D5185(m) >30 0 Aluminum ppm ASTM D5185(m) >330 1 Lead ppm ASTM D5185(m) >330 1 Vanadium ppm ASTM D5185(m) >20 Silicon ppm ASTM D5185(m) >20 Sulicon ppm ASTM D5185(m) >20 Fuel WC Meth	Machine Age	hrs	Client Info		288		
Oli Changed Client Info Changed Filter Changed Client Info Changed Sample Status NORMAL Iron ppm ASTM D5186(m) >100 2 Nickel ppm ASTM D5186(m) >20 0 Nickel ppm ASTM D5186(m) >4 0 Silver ppm ASTM D5186(m) >3 0 Aluminum ppm ASTM D5186(m) >3 0 Lead ppm ASTM D5186(m) >30 1 Vanadium ppm ASTM D5186(m) >30 1 Silicon ppm ASTM D5186(m) >20 1 Silicon ppm ASTM D5186(m) >20 1 Silicon ppm ASTM D5186(m) >20 1 Silicon ppm ASTM D5186(m) >20 <th>Oil Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>0</th> <th></th> <th></th>	Oil Age	hrs	Client Info		0		
Filter Changed Client Info Changed Sample Status NORMAL Iron ppm ASTMD5/85(m) >100 2 Chromium ppm ASTMD5/85(m) >20 0 Nickel ppm ASTMD5/85(m) >4 0 Nickel ppm ASTMD5/85(m) >4 0 Silver ppm ASTMD5/85(m) >3 0 Aluminum ppm ASTMD5/85(m) >30 1 Lead ppm ASTMD5/85(m) >30 1 Vanadium ppm ASTMD5/85(m) >15 <1 Vanadium ppm ASTMD5/85(m) >20 0 Silicon ppm ASTMD5/85(m) >20 0 Vanadium ppm ASTMD5/85(m) >20 0 Silicon ppm AS	Filter Age	hrs	Client Info		0		
Sample Status NORMAL Iron ppm ASTM D5185(m) >100 2 Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >4 0 Nickel ppm ASTM D5185(m) >4 0 Silver ppm ASTM D5185(m) >3 0 Aluminum ppm ASTM D5185(m) >30 1 Lead ppm ASTM D5185(m) >15 <1 Vanadium ppm ASTM D5185(m) >15 <1 Vanadium ppm ASTM D5185(m) >20 0 Silicon ppm ASTM D5185(m) >20 0 Fuel WC Method >0.2 NEG	Oil Changed		Client Info		Changed		
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Nickel ppm ASTM D5185(m) >4 0 Titanium ppm ASTM D5185(m) >3 0 Aluminum ppm ASTM D5185(m) >20 <1 Aluminum ppm ASTM D5185(m) >20 <1 Copper ppm ASTM D5185(m) >330 1 Copper ppm ASTM D5185(m) >330 1 Vanadium ppm ASTM D5185(m) >25 4 Silicon ppm ASTM D5185(m) >20 0 Sulfacion ppm ASTM D5185(m) >20 0 Water VC Method >0.2 NEG Glycol WC Method >0.2 NEG Soti % % ASTM D7624* >20	Chromium		ASTM D5185(m)	>20	0		
Tittanium ppm ASTM D5185(m) >3 0 Silver ppm ASTM D5185(m) >20 <1 Aluminum ppm ASTM D5185(m) >20 <1 Lead ppm ASTM D5185(m) >330 1 Copper ppm ASTM D5185(m) >330 1 Vanadium ppm ASTM D5185(m) >15 <1 Vanadium ppm ASTM D5185(m) >25 4 Vanadium ppm ASTM D5185(m) >20 0 Vanadium ppm ASTM D5185(m) >20 0 Vanadium ppm ASTM D5185(m) >20 0 Silicon ppm ASTM D5185(m) >20 NEG Glycol wC Meth	Nickel		. ,	>4	0		
Silver ppm ASTM D5185(m) >3 0 Aluminum ppm ASTM D5185(m) >20 <1 Lead ppm ASTM D5185(m) >40 0 Copper ppm ASTM D5185(m) >330 1 Tin ppm ASTM D5185(m) >15 <1 Vanadium ppm ASTM D5185(m) >25 4 Vanadium ppm ASTM D5185(m) >20 0 Silicon ppm ASTM D5185(m) >20 4.2 Glycol wCC Method <th>Titanium</th> <th></th> <th></th> <th></th> <th>0</th> <th></th> <th></th>	Titanium				0		
Lead ppm ASTM D5185(m) >40 0 Copper ppm ASTM D5185(m) >330 1 Tin ppm ASTM D5185(m) >15 <1 Vanadium ppm ASTM D5185(m) >15 <1 Silicon ppm ASTM D5185(m) >25 4 Potassium ppm ASTM D5185(m) >20 0 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Soot % % ASTM D7624* >3 0 Sulfation Abs/cm ASTM D71624* >30 19.5 Sodium ppm ASTM D5185(m) >57 1 Boron ppm <td< th=""><th>Silver</th><th></th><th>ASTM D5185(m)</th><th>>3</th><th>0</th><th></th><th></th></td<>	Silver		ASTM D5185(m)	>3	0		
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Tin ppm ASTM D5185(m) >15 <1	Lead		ASTM D5185(m)	>40	0		
Vanadium ppm ASTM D5185(m) C O Silicon ppm ASTM D5185(m) >25 4 Potassium ppm ASTM D5185(m) >20 0 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG Soot % % ASTM D7624* >3 0 Sulfation Abs/cm ASTM D7624* >20 4.2 Sulfation Abs/.1mm ASTM D7624* >30 19.5 Sulfation Abs/.1mm ASTM D7624* >0.2 NEG Sodium ppm ASTM D5185(m) >5.7 1 Boron ppm ASTM D5185(m) 0	Copper	ppm	ASTM D5185(m)	>330	1		
Silicon ppm ASTM D5185(m) >25 4 Potassium ppm ASTM D5185(m) >20 0 Fuel WC Method >5 <1.0	Tin	ppm	ASTM D5185(m)	>15	<1		
Potassium ppm ASTM D5185(m) >20 0 Fuel WC Method >5 <1.0 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG Soot % % ASTM D7844* >3 0 Nitration Abs/cm ASTM D7624* >20 4.2 Sulfation Abs/cm ASTM D7624* >20 4.2 Sulfation Abs/cm ASTM D7624* >30 19.5 Sulfation Abs/cm ASTM D7185* >30 19.5 Sodium ppm ASTM D5185(m) >57 1 Boron ppm ASTM D5185(m) 0 Malgaesium ppm ASTM D5185(m) 0 -	Vanadium	ppm	ASTM D5185(m)		0		
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FuelWC Method>5<1.0	Potassium		. ,	>20	0		
GlycolWC MethodNEGSoot %%ASTM D7844*>30NitrationAbs/cmASTM D7624*>204.2SulfationAbs/.1mASTM D7615*>3019.5SulfationAbs/.1mASTM D7115*>3019.5Emulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>571BoronppmASTM D5185(m)>571BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0MagnesiumppmASTM D5185(m)1423PhosphorusppmASTM D5185(m)1110SulfurppmASTM D5185(m)1110SulfurppmASTM D5185(m)2641SulfurppmASTM D5185(m)2641SulfurppmASTM D7414*>2514.3Base Number (BN)mg KOHgASTM D2896ms.52	Fuel		WC Method	>5	<1.0		
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Sulfation Abs/.1mm ASTM D7415* >30 19.5 Emulsified Water scalar Visual* >0.2 NEG Sodium ppm ASTM D5185(m) >57 1 Boron ppm ASTM D5185(m) >57 1 Barium ppm ASTM D5185(m) >57 1 Molybdenum ppm ASTM D5185(m) 0 Manganese ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 0 Calcium ppm ASTM D5185(m) 1423 Phosphorus ppm ASTM D5185(m) 1110 Zinc ppm ASTM D5185(m) 1110 Sulfur ppm ASTM D5185(m) 2641 Oxidation	Soot %	%	ASTM D7844*	>3	0		
Emulsified WaterscalarVisual*>0.2NEGSodiumppmASTM D5185(m)>571BoronppmASTM D5185(m)S318BariumppmASTM D5185(m)0MolybdenumppmASTM D5185(m)0ManganeseppmASTM D5185(m)0MagnesiumppmASTM D5185(m)0CalciumppmASTM D5185(m)1423PhosphorusppmASTM D5185(m)11423ZincppmASTM D5185(m)11110SulfurppmASTM D5185(m)2641OxidationAbs/.1mmASTM D7414*>2514.3Base Number (BN)mg KOHgASTM D2896*8.52	Nitration	Abs/cm	ASTM D7624*	>20	4.2		
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Molybdenum ppm ASTM D5185(m) 77 Manganese ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 373 Calcium ppm ASTM D5185(m) 1423 Phosphorus ppm ASTM D5185(m) 958 Zinc ppm ASTM D5185(m) 11110 Sulfur ppm ASTM D5185(m) 26641 Oxidation Abs/.1mm ASTM D7414* >25 14.3 Base Number (BN) mg KOHg ASTM D2896* 8.52	Barium		ASTM D5185(m)		0		
Manganese ppm ASTM D5185(m) O Magnesium ppm ASTM D5185(m) G 373 Calcium ppm ASTM D5185(m) 1423 Phosphorus ppm ASTM D5185(m) 958 Zinc ppm ASTM D5185(m) 1110 Sulfur ppm ASTM D5185(m) 2641 Oxidation Abs/.1mm ASTM D7414* >25 14.3 Base Number (BN) mg KOH/g ASTM D2886* 8.52							
Calcium ppm ASTM D5185(m) 1423 Phosphorus ppm ASTM D5185(m) 958 Zinc ppm ASTM D5185(m) 1110 Sulfur ppm ASTM D5185(m) 2641 Oxidation Abs/.1mm ASTM D7414*<>25 14.3 Base Number (BN) mg KOH/g ASTM D2896* 8.52					0		
Calcium ppm ASTM D5185(m) 1423 Phosphorus ppm ASTM D5185(m) 958 Zinc ppm ASTM D5185(m) 1110 Sulfur ppm ASTM D5185(m) 2641 Oxidation Abs/.1mm ASTM D7414*<>25 14.3 Base Number (BN) mg KOH/g ASTM D2896* 8.52	Magnesium		ASTM D5185(m)		373		
Zinc ppm ASTM D5185(m) 1110 Sulfur ppm ASTM D5185(m) 2641 Oxidation Abs/.1mm ASTM D7414* >25 14.3 Base Number (BN) mg KOH/g ASTM D2896* 8.52	-		ASTM D5185(m)				
Sulfur ppm ASTM D5185(m) 2641 Oxidation Abs/.1mm ASTM D7414* >25 14.3 Base Number (BN) mg KOH/g ASTM D2896* 8.52	Phosphorus	ppm	ASTM D5185(m)		958		
Oxidation Abs/.1mm ASTM D7414* >25 14.3 Base Number (BN) mg KOH/g ASTM D2896* 852	Zinc	ppm	ASTM D5185(m)		1110		
Base Number (BN) mg KOH/g ASTM D2896* 8.52	Sulfur	ppm	ASTM D5185(m)		2641		
	Oxidation	Abs/.1mm	ASTM D7414*	>25	14.3		
Visc @ 100°C cSt ASTM D7279(m) 14.5 13.9	Base Number (BN)	mg KOH/g	ASTM D2896*		8.52		
	Visc @ 100°C	cSt	ASTM D7279(m)	14.5	13.9		

Contact/Location: Service Manager - GEN134NOR





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