WEAR CONTAMINATION FLUID CONDITION

NORMAL

MARGINAL

ABNORMAL



CATERPILLAR 216-1114

Component Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- LTR)

Test UoM Method Current History Hi		.9.1						
The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. Sample Date Client Info Sample Status Sampl	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age hrs Client Info 117		Sample Number		Client Info		PC0072505		
Machinic Age hrs Client Info 117		Sample Date		Client Info		20 Dec 2023		
Filter Age hiss Client Info Changed Changed Client Info Changed Change	the next service interval to monitor.	Machine Age	hrs	Client Info		8886		
Oil Changed Cilent Info Changed Change		Oil Age	hrs	Client Info		117		
Filter Changed Sample Status Sample Stat		Filter Age	hrs	Client Info		117		
Name		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		Changed		
All component wear rates are normal.		Sample Status				ABNORMAL		
All component wear rates are normal.								
Nickel ppm ASTM 05185m 2 0	WEAR			. ,				
Titanium ppm ISTID 686m >2 0	All component wear rates are normal			(/				
Silver ppm ASTM Dissim >2	All component wear rates are normal.		ppm	. ,				
Aluminum ppm ASTM D685mi >25 2			ppm					
Lead				. ,				
Copper			ppm					
Tin				. ,				
Vanadium ppm ASTM D5185/m NONE NO			ppm					
White Metal Yellow Metal Scalar Yellow Metal Scalar Yellow Metal Scalar Yellow Metal NoNE NoNE					>15			
Vallow Metal Scalar Visual* NONE N				\ /		-		
Silicon ppm ASTM DS185(m) >25								
Potassium ppm ASTM D5185(m) >0 <1 Fuel % ASTM D5185(m) >0 <1 Water WC Method >0.2 NEG Glycol WC Method Soot % % % ASTM D7844* >3 0.1 Nitration Abs/cm ASTM D7844* >3 0.1 Nitration Abs/cm ASTM D7844* >0 7.5 Sulfation Abs/cm ASTM D7844* >0 21.5 Silt scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Sand/Dirt scalar Visual* NORM NOR		Yellow Metal	scalar	Visual*	NONE	NONE		
Potassium ppm ASTM D5185(m) >0 <1 Fuel % ASTM D5185(m) >0 <1 Water WC Method >0.2 NEG Glycol WC Method Soot % % % ASTM D7844* >3 0.1 Nitration Abs/cm ASTM D7844* >3 0.1 Nitration Abs/cm ASTM D7844* >0 7.5 Sulfation Abs/cm ASTM D7844* >0 21.5 Silt scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Sand/Dirt scalar Visual* NORM NOR	CONTAMINATION	Silicon	nnm	AQTM DE195(m)	- 25	4		
Fuel % ASTM D7593' > 5 2.8 Water WC Method > 0.2 NEG Glycol WC Method > 0.2 NEG Sool % ASTM D7644' > 3 0.1 Nitration Abs/mm ASTM D7644' > 3 0.1 Sulfation Abs/mm ASTM D7644' > 3 0.1 Sulfation Abs/mm ASTM D7644' > 20 7.5 Silt Scalar Visual* NONE NONE Debris Scalar Visual* NONE NONE Debris Scalar Visual* NONE NONE Appearance Scalar Visual* NORML N	CONTAININATION			. ,				
Water WC Method So.2 NEG N	Light fuel dilution occurring.			()				
Glycol			/0					
Soot %					<i>></i> 0.∠			
Nitration Abs/cm ASTM D7624* >20 7.5		•	0/_		~3			
Sulfation Abs.!.tmm ASTM D7415* >30 21.5 Silt scalar Visual* NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE VIITE Appearance scalar Visual* NORML NORML NORML Appearance scalar Visual* NORML NORML NORML Codor scalar Visual* NORML NORML NORML NORML Emulisified Water scalar Visual* NORML NORML NORML Emulisified Water scalar Visual* NORML NORML Emulisified Water scalar Visual* NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML NORML								
Silt Scalar Visual* NONE NONE NONE NONE NONE Sand/Dirt Scalar Visual* NONE NONE NONE NONE Sand/Dirt Scalar Visual* NONE NONE VLITE Sand/Dirt Scalar Visual* NONE NORML N								
Debris Scalar Visual* NONE NONE Sand/Dirt Scalar Visual* NONE NORE Sand/Dirt Scalar Visual* NORE NORML NORML Scalar Visual* NORML Scalar Scalar Visual* NORML Scalar Scalar Visual* NORML Scalar Scalar Visual* NORML Scalar Scalar Scalar Visual* NORML Scalar Scalar Scalar Visual* NORML Scalar								
Sand/Dirt Scalar Visual* NONE NORML NORML								
Appearance Scalar Visual* NORML NORM								
Codor Emulsified Water Scalar Visual* NORML NORML								
FLUID CONDITION								
FLUID CONDITION Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service. Sodium ppm ASTM D5185(m) 250 54								
Boron ppm ASTM D5185(m) 250 54								
Fuel is present in the oil and is lowering the viscosity. The condition of the oil is acceptable for the time in service. Barium ppm ASTM D5185(m) 100 40	FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>158	3		
the oil is acceptable for the time in service. Molybdenum ppm ASTM D5185(m) 100 40 Manganese ppm ASTM D5185(m) 450 483 Calcium ppm ASTM D5185(m) 3000 1706 Phosphorus ppm ASTM D5185(m) 1150 751 Zinc ppm ASTM D5185(m) 1350 857 Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C CSt ASTM D7279(m) 115 ▲ 80.8 Visc @ 100°C CSt ASTM D7279(m) 14.4 ▲ 11.4		Boron	ppm	ASTM D5185(m)	250	54		
Manganese ppm ASTM D5185(m) 0 Magnesium ppm ASTM D5185(m) 450 483 Calcium ppm ASTM D5185(m) 3000 1706 Phosphorus ppm ASTM D5185(m) 1150 751 Zinc ppm ASTM D5185(m) 1350 857 Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 11.4 11.4 11.4 11.5 11.4 11.4 11.5 11.4 11.4 11.4 11.5 11.4 11.4 11.4 11.5 11.4 11.4 11.4 11.4 11.5 11.4 11.4 11.4 11.4 11.4 11.4 11.5 11.4 11.4 11.5 11.6 11.6 11.6 11.7 11.7 11.7 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.8 11.9	·	Barium	ppm	ASTM D5185(m)	10	0		
Magnesium ppm ASTM D5185(m) 450 483 Calcium ppm ASTM D5185(m) 3000 1706 Phosphorus ppm ASTM D5185(m) 1150 751 Zinc ppm ASTM D5185(m) 1350 857 Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 11.4	the on is acceptable for the time in service.	Molybdenum	ppm	ASTM D5185(m)	100	40		
Calcium ppm ASTM D5185(m) 3000 1706 Phosphorus ppm ASTM D5185(m) 1150 751 Zinc ppm ASTM D5185(m) 1350 857 Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 11.4		Manganese	ppm	\ /		0		
Phosphorus ppm ASTM D5185(m) 1150 751 Zinc ppm ASTM D5185(m) 1350 857 Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 11.4		Magnesium	ppm	ASTM D5185(m)	450	483		
Zinc ppm ASTM D5185(m) 1350 857 Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 ▲ 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 ▲ 11.4			ppm	. ,				
Sulfur ppm ASTM D5185(m) 4250 2358 Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 ▲ 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 ▲ 11.4			ppm	ASTM D5185(m)	1150			
Oxidation Abs/.1mm ASTM D7414* >25 20.4 Visc @ 40°C cSt ASTM D7279(m) 115 ▲ 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 ▲ 11.4			ppm	. ,				
Visc @ 40°C cSt ASTM D7279(m) 115 ▲ 80.8 Visc @ 100°C cSt ASTM D7279(m) 14.4 ▲ 11.4			ppm					
Visc @ 100°C cSt ASTM D7279(m) 14.4 ▲ 11.4								
		-						
Viscosity Index (VI) Scale ASTM D2270* 126 131				. ,				
		Viscosity Index (VI)	Scale	ASTM D2270*	126	131		





CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number**

: PC0072505 : 02606901

: 5707987

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Recieved

: 08 Jan 2024 Diagnosed : 09 Jan 2024

Diagnostician : Wes Davis Test Package : MOB 1 (Additional Tests: FuelDilution, KV40, PercentFuel, VI, Visual)

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. LAVIS CONTRACTING 37462A HURON ROAD CLINTON, ON CA NOM 1L0 Contact: Doug Francis dfrancis@lavis.ca

Validity of results and interpretation are based on the sample and information as supplied.

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