



WEAR CONTAMINATION FLUID CONDITION

NORMAL ABNORMAL NORMAL

Store 9 - Marietta

34-018

Diesel Engine

Sample Number Client Info LE0032052	fluid {not provided} (GAL)							
Sample Number Client Info Sample Oate Sample Number Client Info Sample Oate Sample Oat	RECOMMENDATION We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Date Client Info 23 Jan 2024		Sample Number		Client Info		LEC0032052	,	
Machine Age Inst. Client Info 500						23 Jan 2024		
Oil Age hrs Client Info 500		Machine Age	hrs	Client Info		500		
Filter Age hrs Cilent Info N/A		Oil Age	hrs	Client Info		500		
Filter Changed Sample Status Sample Stat		Filter Age	hrs	Client Info		500		
NEAR		Oil Changed		Client Info		N/A		
Visual V		Filter Changed		Client Info		N/A		
Chromium ppm ASTM D5185m >20 <1		Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >20 <1	WEAR	Iron	nnm	ΔSTM D5185m	>100	28		
Nickel ppm ASTM D5185m >4 0	Metal levels are typical for a new component breaking in.	-						
Titanium ppm ASTM D5185m 3 0								
Silver ppm ASTM D5185m >3 0 .					77	-		
Aluminum ppm ASTM D5185m >20 5					>3			
Lead						_		
Copper						-		
Tin ppm ASTM D5185m >15 0								
Vanadium ppm ASTM D5185m 0								
White Metal Yellow Metal Scalar *Visual NONE		Vanadium				-		
Yellow Metal Scalar *Visual NONE NONE					NONE	_		
Potassium ppm ASTM D5185m >20 <1 Fuel % ASTM D3524 >5 ▲ 2.2 Water WC Method >0.2 NEG Glycol WC Method NEG Soot % % *ASTM D7844 >3 0.4 Sulfation Abs/cm *ASTM D7845 >20 9.6 Sulfation Abs/cm *ASTM D7845 >30 25.7 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML ASTM D5185m 212 Barium ppm ASTM D5185m 212 Molybdenum ppm ASTM D5185m 206 Manganese ppm ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1		Yellow Metal				_		
Potassium ppm ASTM D5185m >20 <1 Fuel % ASTM D3524 >5 ▲ 2.2 Water WC Method >0.2 NEG Glycol WC Method NEG Soot % % *ASTM D7844 >3 0.4 Sulfation Abs/cm *ASTM D7845 >20 9.6 Sulfation Abs/cm *ASTM D7845 >30 25.7 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML NORML Appearance scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML ASTM D5185m 212 Barium ppm ASTM D5185m 212 Molybdenum ppm ASTM D5185m 206 Manganese ppm ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1 ASTM D5185m <1								
Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. Light fuel dilution occurring. Fuel % ASTM D3524 >5 ▲ 2.2	Elemental level of silicon (Si) above normal indicating ingress of dirt/seal material. Light fuel dilution occurring.	Silicon	ppm	ASTM D5185m	>!20	42		
Water WC Method NEG								
Water			%					
Soot %					>0.2			
Nitration Abs/cm *ASTM D7624 >20 9.6 Sulfation Abs/cm *ASTM D7415 >30 25.7 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML NORML NORML NORML Appearance scalar *Visual NORML								
Sulfation Abs/.1mm *ASTM D7415 >30 25.7						_		
Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORM								
Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NORML Scalar *Visual NORML NORML NORML Scalar *Visual NORML NORML NORML NORML NORML NORML NORML NORML Scalar *Visual NORML						_		
Sand/Dirt scalar *Visual NONE NORML Appearance scalar *Visual NORML Emulsified Water scalar *Visual NORML NO								
Appearance scalar *Visual NORML Odor scalar *Visual NORML NORML Femulsified Water scalar *Visual NORML								
Odor scalar *Visual NORML NORML								
FLUID CONDITION The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service. Emulsified Water scalar *Visual >0.2 NEG Sodium ppm ASTM D5185m 7 Boron ppm ASTM D5185m 212 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 206 Manganese ppm ASTM D5185m <1								
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Molybdenum ppm ASTM D5185m 206 Manganese ppm ASTM D5185m <1		Barium				0		
Manganese ppm ASTM D5185m <1		Molybdenum		ASTM D5185m		206		
Magnesium ppm ASTM D5185m 638		•				<1		
		Magnesium	ppm	ASTM D5185m		638		

Calcium

Zinc

Sulfur

Oxidation

Visc @ 100°C cSt

Phosphorus

ppm

ppm

Base Number (BN) mg KOH/g ASTM D2896

ASTM D5185m

ASTM D5185m

Abs/.1mm *ASTM D7414 >25

ASTM D445

ppm ASTM D5185m

ppm ASTM D5185m

1754

819

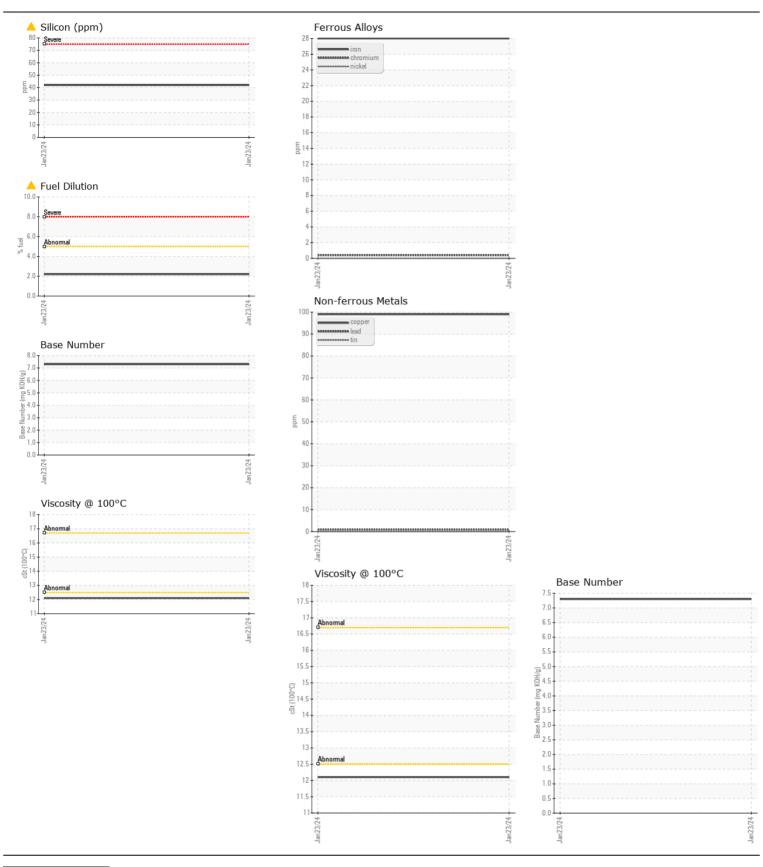
1028

3015

23.5

7.3

12.1







Laboratory Sample No.

Lab Number : 06073567 Unique Number : 10850244

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : LEC0032052

Received : 30 Jan 2024 **Tested** : 31 Jan 2024 Diagnosed

: 31 Jan 2024 - Don Baldridge Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, 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)

HAYDEN EXCAVATING

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