WEAR CONTAMINATION **FLUID CONDITION**

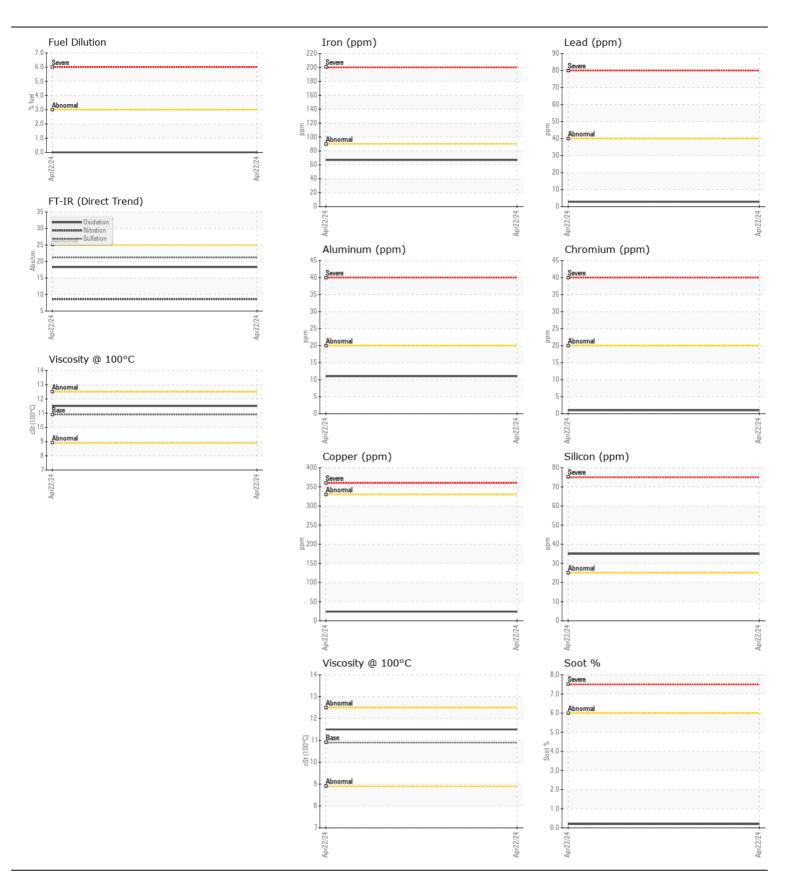
NORMAL NORMAL NORMAL

Machine Id

52965

Component Diesel Engine

Test	DIESEL ENGINE OIL SAE 30 (GAL)							
Sample Number Client Irlo W0027859 Sample Date Client Irlo 22 Apr 2024 Sample Date Client Irlo 26506 Sample Date Client Irlo 24110 Sample Date Client Irlo Client Irlo Client Irlo Client Irlo Client Irlo Client Irlo Changed Sample Status S	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Just	Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC)	Sample Number		Client Info				
Machine Age mls Client Info 24110 24		Sample Date		Client Info		22 Apr 2024		
Metal levels are typical for a new component breaking in. Iron ppm ASTM DBISS 20 1		Machine Age	mls	Client Info		26506		
Companies Comp		Oil Age	mls	Client Info		24110		
Filter Changed Sample Status Client Info Changed NORMAL		Filter Age	mls	Client Info		24110		
NORMAL N		Oil Changed		Client Info		Changed		
Iron		Filter Changed		Client Info		Changed		
Metal levels are typical for a new component breaking in. Nickel ppm ASTM.5588m >20 1 Nickel ppm ASTM.5588m >20 1 Nickel ppm ASTM.5588m >20 1 Tritanium ppm ASTM.5588m >2 0 Tritanium ppm ASTM.5588m >2 0 Silver ppm ASTM.5588m >2 0 Aluminum ppm ASTM.5588m >2 0 Lead ppm ASTM.5588m >2 0		Sample Status				NORMAL		
Nickel pm ASTN 0588 m >2 <1	WEAR	Iron	ppm	ASTM D5185(m)	>90	67		
Nickel ppt Astratolstay >2 0		Chromium	ppm	ASTM D5185(m)	>20	1		
Silver		Nickel	ppm	ASTM D5185(m)	>2	<1		
Aluminum ppm ASTM D5185/m >20 11		Titanium	ppm	ASTM D5185(m)	>2	0		
Lead ppm ASTM D5185(m) >40 3		Silver	ppm	ASTM D5185(m)	>2	0		
Copper		Aluminum	ppm	ASTM D5185(m)	>20	11		
Tin		Lead	ppm	ASTM D5185(m)	>40	3		
Vanadium ppm ASTM D5185(m) VLITE White Metal scalar Visual* NONE VLITE Yellow Metal scalar Visual* NONE NONE Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the Unbricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. There is no indication of any contamination in the oil. Solicon ppm ASTM D5185(m) >25 35 Potassium ppm ASTM D5185(m) >20 40 Fuel % ASTM D7583* >3.0 0.0 Water WC Method >0.2 NEG Water WC Method >0.2 NEG Water WC Method >0.2 NEG Witration Abs/cm ASTM D7624* >0.2 Silt scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE NONE Appearance scalar Visual* NONE NONE Appearance scalar Visual* NORML NORML Appearance scalar Visual* NORML NORML Appearance scalar Visual* NORML Appearance scalar Visual* NORML		Copper	ppm	. ,				
White Metal Scalar Visual* NONE VLITE NONE NONE VLITE NONE			ppm	. ,	>15	3		
Vellow Metal scalar Visual* NONE NONE CONTAMINATION Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. There is no indication			ppm	. ,		-		
CONTAMINATION Contaminatio								
Potassium ppm ASTM D5185(m) >20 40		Yellow Metal	scalar	Visual*	NONE	NONE		
Potassium ppm ASTM D5185(m) >20 40	CONTAMINATION	Silicon	ppm	ASTM D5185(m)	>25	35		
your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. Value		Potassium	ppm	ASTM D5185(m)	>20	40		
Lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. Soot %	your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. Tests indicate that there is no fuel present in the oil. There is no indication of	Fuel	%	ASTM D7593*	>3.0	0.0		
Solidicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. Solidicate that there is no fuel present in the oil. There is no indication of any contamination in the oil. Solidicate Solidicate Solidicate Solidicate Abs/cm ASTM D7844* >6 0.2		Water		WC Method	>0.2	NEG		
Nitration Abs/cm ASTM D7624* >20 8.6		Glycol		WC Method		NEG		
Sulfation		Soot %	%	ASTM D7844*	>6	0.2		
Silt scalar Visual* NONE NONE Debris scalar Visual* NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE Sand/Dirt scalar Visual* NONE NONE NONE Appearance scalar Visual* NORML NOR		Nitration	Abs/cm	ASTM D7624*	>20	8.6		
Debris Scalar Visual* NONE NONE Sand/Dirt Scalar Visual* NONE NONE Sand/Dirt Scalar Visual* NONE NONE Sand/Dirt Scalar Visual* NORML NORML Scalar Visual* NORML Scalar Visual* NORML NORML Scalar NORML NORML Scalar NORML NORML Scalar NORML NORML Scalar NORML Scalar NORML Scalar NORML Scalar NORML Scalar Sc		Sulfation	Abs/.1mm	ASTM D7415*	>30	21.2		
Sand/Dirt scalar Visual* NONE NONE NONE Appearance scalar Visual* NORML		Silt	scalar	Visual*	NONE	NONE		
Appearance Scalar Visual* NORML NORM		Debris	scalar	Visual*	NONE	NONE		
Codor scalar Visual* NORML NORML NORML Emulsified Water scalar Visual* >0.2 NEG		Sand/Dirt	scalar	Visual*				
Emulsified Water scalar Visual* >0.2 NEG		• •						
Sodium ppm ASTM D5185(m) >75 4								
Boron ppm ASTM D5185(m) 250 63		Emulsified Water	scalar	Visual*	>0.2	NEG		
Boron ppm ASTM D5185(m) 250 63	FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>75	4		
Molybdenum ppm ASTM D5185(m) 100 64 Manganese ppm ASTM D5185(m) 6 Magnesium ppm ASTM D5185(m) 450 446 Calcium ppm ASTM D5185(m) 3000 1778 Phosphorus ppm ASTM D5185(m) 1150 931		Boron	ppm	ASTM D5185(m)	250	63		
Manganese ppm ASTM D5185(m) 6 Magnesium ppm ASTM D5185(m) 450 446 Calcium ppm ASTM D5185(m) 3000 1778 Phosphorus ppm ASTM D5185(m) 1150 931		Barium	ppm	ASTM D5185(m)	10	5		
Magnesium ppm ASTM D5185(m) 450 446 Calcium ppm ASTM D5185(m) 3000 1778 Phosphorus ppm ASTM D5185(m) 1150 931		Molybdenum	ppm	ASTM D5185(m)	100	64		
Calcium ppm ASTM D5185(m) 3000 1778 Phosphorus ppm ASTM D5185(m) 1150 931		Manganese	ppm	ASTM D5185(m)		6		
Phosphorus ppm ASTM D5185(m) 1150 931		Magnesium	ppm	ASTM D5185(m)	450	446		
		Calcium	ppm	ASTM D5185(m)	3000	1778		
		Phosphorus	ppm	ASTM D5185(m)	1150	931		
		Zinc	ppm	ASTM D5185(m)	1350	1140		
Sulfur ppm ASTM D5185(m) 4250 2335			ppm					
Oxidation								
Visc @ 100°C cSt ASTM D7279(m) 10.9 11.5		Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.5		





ISO 17025:2017
Accredited
Laboratory

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

 Sample No.
 : WC0927589
 Received
 : 03 Jun 2024

 Lab Number
 : 02639371
 Tested
 : 04 Jun 2024

 Unique Number
 : 5788533
 Diagnosed
 : 04 Jun 2024 - Wes Davis

Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, 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. Validity of results and interpretation are based on the sample and information as supplied.

MANITOULIN TRANSPORT

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