

WEAR CONTAMINATION FLUID CONDITION

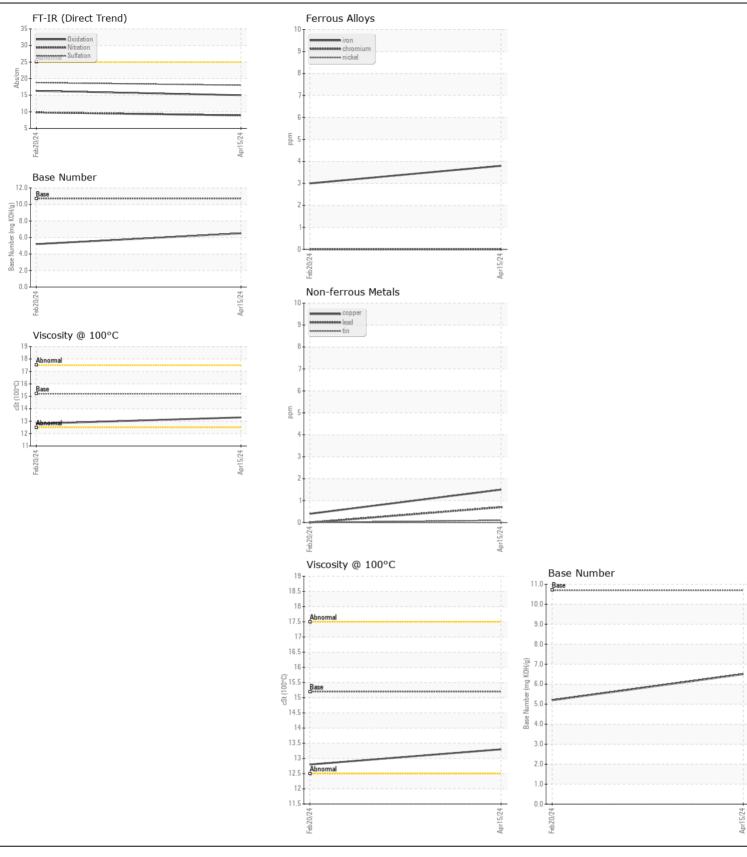
NORMAL NORMAL



## MACK 429122-SW4919 Component Diesel Engine

MOBIL DELVAC ELITE 15W40 (--- GAL)

Sample Number   Client Info   Sample Number   Client Info   Sample Number   Client Info   Sample Number   Sample Date   Machine Age   hrs   Client Info   9268   9026	WIODIL DELVAC ELITE 13W40	( GAL)						
Sample Date   Client Info   15 Apr 2024   OF the 2024   Filter Age   Inst   Client Info   9026   O   O   O	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age   hrs   Client Info   9268   9026       Machine Age   hrs   Client Info   9026   0       Filter Age   hrs   Client Info   0   0   0       Filter Age   hrs   Client Info   0   0   0       Filter Age   hrs   Client Info   0   0   0       Filter Age   hrs   Client Info   Changed   Cha	Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0111300	GFL0111277	
Col Age		Sample Date		Client Info		15 Apr 2024	20 Feb 2024	
Filter Age		Machine Age	hrs	Client Info		9268	9026	
Cil Changed   Cilent Info   Changed   Change		Oil Age	hrs	Client Info		9026	0	
Filter Changed   Changed		Filter Age	hrs	Client Info		0	0	
NORMAL   N		Oil Changed		Client Info		Changed	Changed	
Iron		Filter Changed		Client Info		Changed	Changed	
Chromium   ppm   ASTM D6185m   >20   0   0   0   0   0   0   0   0   0		Sample Status				NORMAL	NORMAL	
Chromium   ppm   ASTM D6185m   >20   0   0   0   0   0   0   0   0   0	WEAR	Iron	nnm	ASTM D5185m	<b>\120</b>	4	3	
Nicket   ppm   ASTM DSISEs   50   0   0	All component wear rates are normal.							
Titanium   ppm   ASTM D5185m   >2   0   0								
Silver			• • • • • • • • • • • • • • • • • • • •					
Aluminum   ppm   ASTM D5185m   >20   4   3						_		
Lead			• • • • • • • • • • • • • • • • • • • •					
Copper								
Tin								
Vanadium   ppm   ASTM D5185m   NONE   NONE								
White Metal Yellow Metal   Scalar   *Visual NONE   NONE					>15			
Silicon   ppm   ASTM D5185m   25   3   4					NONE	-	-	
Silicon   ppm   ASTM D5185m   >25   3   4								
Potassium   ppm   ASTM D5185m   >20   2   0	<u></u>	Yellow Metal	scalar	^Visual	NONE	NONE	NONE	
Fuel   WC Method   So.0   St.0   St	CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	3	4	
Water	There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2	0	
Glycol   Soot % % % 'ASTM D7844   S4   O.2   O.2   O.2   O.2   O.2   O.2   O.3		Fuel		WC Method	>3.0	<1.0	<1.0	
Soot %		Water		WC Method	>0.2	NEG	NEG	
Nitration   Abs/cm   *ASTM D7624   >20   8.9   9.8		Glycol		WC Method		NEG	NEG	
Sulfation   Abs/.lmm   "ASTM D7415   >30   18.0   18.8		Soot %	%	*ASTM D7844	>4	0.2	0.2	
Silt   scalar *Visual   NONE   NORML   NOR		Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.8	
Debris   Scalar   *Visual   NONE   NONE   NONE   Sand/Dirt   Scalar   *Visual   NONE   NORE   NONE   NONE		Sulfation	Abs/.1mm	*ASTM D7415	>30	18.0	18.8	
Sand/Dirt   Scalar *Visual   NONE   NONE   Appearance   Scalar *Visual   NORML   NOR		Silt	scalar	*Visual	NONE	NONE	NONE	
Appearance   Scalar   Visual   NORML   NORML		Debris	scalar	*Visual	NONE	NONE	NONE	
Oddr   Scalar *Visual   NORML   NORML   NORML   NEG   NEG		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Emulsified Water   scalar   *Visual   >0.2   NEG   NEG		Appearance	scalar	*Visual	NORML	NORML	NORML	
Sodium   ppm   ASTM D5185m   99   62		Odor	scalar	*Visual	NORML	NORML	NORML	
Boron   ppm   ASTM D5185m   ppm   ASTM D5185m   Do   Do   Do   Do   Do   Do   Do   D		<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	
Boron   ppm   ASTM D5185m   ppm   ASTM D5185m   Do   Do   Do   Do   Do   Do   Do   D	ELLID CONDITION	Sodium	nnm	ΔSTM D5185m		4	g	
The BN result indicates that there is suitable alkalinity remaining in the bil. The condition of the oil is suitable for further service.    Barium   ppm   ASTM D5185m   126   114       Molybdenum   ppm   ASTM D5185m   <1   0       Magnesium   ppm   ASTM D5185m   681   635       Calcium   ppm   ASTM D5185m   1252   1243       Phosphorus   ppm   ASTM D5185m   775   695       Zinc   ppm   ASTM D5185m   847   786       Sulfur   ppm   ASTM D5185m   3831   3010       Oxidation   Abs/.1mm *ASTM D7414   >25   15.0   16.3       Base Number (BN)   mg KOH/g   ASTM D2896   10.7   6.5   5.2	I LOID CONDITION							
Molybdenum ppm ASTM D5185m	The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.							
Manganese         ppm         ASTM D5185m         <1								
Magnesium         ppm         ASTM D5185m         681         635            Calcium         ppm         ASTM D5185m         1252         1243            Phosphorus         ppm         ASTM D5185m         775         695            Zinc         ppm         ASTM D5185m         847         786            Sulfur         ppm         ASTM D5185m         3831         3010            Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0         16.3            Base Number (BN)         mg KOH/g         ASTM D2896         10.7         6.5         5.2		•						
Calcium         ppm         ASTM D5185m         1252         1243            Phosphorus         ppm         ASTM D5185m         775         695            Zinc         ppm         ASTM D5185m         847         786            Sulfur         ppm         ASTM D5185m         3831         3010            Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0         16.3            Base Number (BN)         mg KOH/g         ASTM D2896         10.7         6.5         5.2								
Phosphorus         ppm         ASTM D5185m         775         695            Zinc         ppm         ASTM D5185m         847         786            Sulfur         ppm         ASTM D5185m         3831         3010            Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0         16.3            Base Number (BN)         mg KOH/g         ASTM D2896         10.7         6.5         5.2								
Zinc         ppm         ASTM D5185m         847         786            Sulfur         ppm         ASTM D5185m         3831         3010            Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0         16.3            Base Number (BN)         mg KOH/g         ASTM D2896         10.7         6.5         5.2								
Sulfur         ppm         ASTM D5185m         3831         3010            Oxidation         Abs/.1mm         *ASTM D7414         >25         15.0         16.3            Base Number (BN)         mg KOH/g         ASTM D2896         10.7         6.5         5.2		·						
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Base Number (BN)         mg KOH/g         ASTM D2896         10.7         6.5         5.2					- OF			
VISC @ 100°C CSt ASTM D445 15.2 13.3 12.8		, ,	0 0					
		visc @ 100°C	00[	ASTIVI D445	15.2	13.3	12.8	







Certificate L2367

Laboratory Sample No.

: GFL0111300 Lab Number : 06231214 Unique Number : 11114707 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 09 Jul 2024 **Tested** 

: 10 Jul 2024 Diagnosed : 10 Jul 2024 - Wes Davis

GFL Environmental - 981 - Port Arthur Hauling

1000 S Business Park Dr Port Arthur, TX US 77640

Contact: MICHAEL KAY mkay@gflenv.com

T: (336)660-9331

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)