

WEAR CONTAMINATION FLUID CONDITION

NORMAL ATTENTION NORMAL



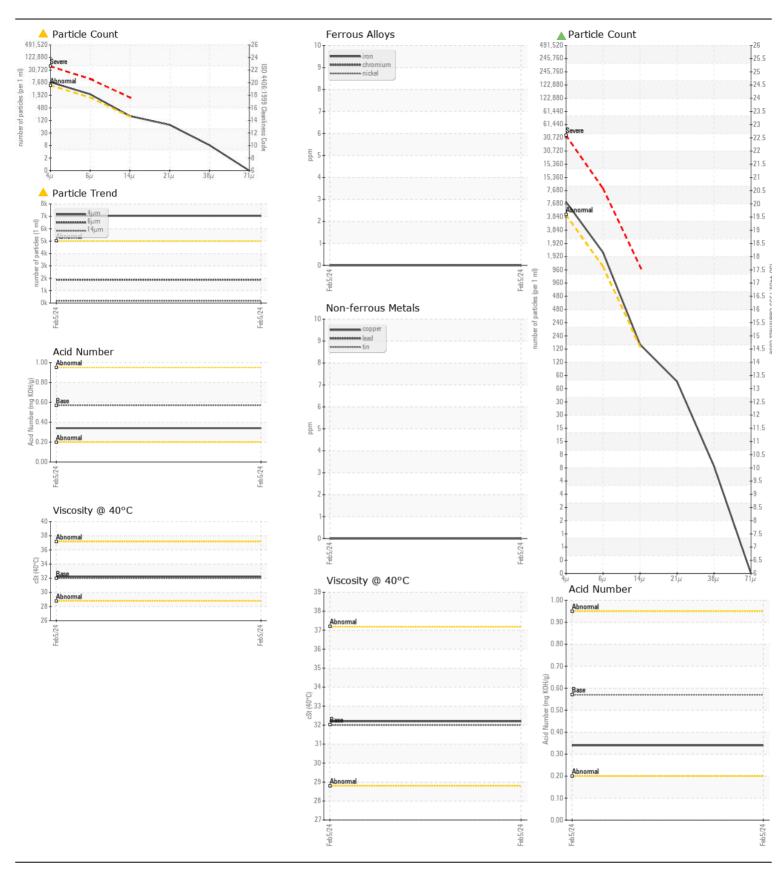
Area **2M34**

FREIGHTLINER M2 106 JTK9828

Component Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- GAL)

We recommend you service the filters on this component. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid mach indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We recommend you service the filters on this component. Resample at the next service interval to monitor. The flut was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.	TEOOMMENDATION		COM		Limitorion		,	
the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that his fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm. WEAR	the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW	•						
Nower, a fued match indicates that this fluid is (GENERIC) AW HYDRAULC OIL ISO 32. Please confirm. Filter Age mls Client Info O O O O O O O O O			mls					
Filter Age		•	mls			0		
Filter Changed Sample Status ATTENTION		Filter Age	mls	Client Info		0		
Name		Oil Changed		Client Info		N/A		
Iron		Filter Changed		Client Info		N/A		
All component wear rates are normal. Chromium ppm ASTM D5165m >2 0		Sample Status				ATTENTION		
All component wear rates are normal. Chromium ppm ASTM D5165m >2 0								
Nicke	WEAR		• •					
Titanium ppm ASTM 05185m 2 0 Silver ppm ASTM 05185m 2 0 Aduminum ppm ASTM 05185m 5 0 Aduminum ppm ASTM 05185m 5 0 Aluminum ppm ASTM 05185m 5 0 Copper ppm ASTM 05185m 5 0 Vanadium ppm ASTM 05185m 5 0 Value Volume Value Volume Value Volume Value Volume Value Volume Value Volume Value	All component wear rates are normal.							
Silver ppm ASTM D5185n >8 0			• •			-		
Aluminum ppm ASTM D5185m >8 0					>2	_		
Lead					0			
Copper						-		
Time								
Vanadium ppm ASTM D5185m NONE								
White Metal Scalar Visual NONE NO					>2			
Vellow Metal Scalar Visual NONE N					NONE	_		
Silicon ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 Water WC Method >0.1 NEG Particles >4µm ASTM D7647 >5000 \$ \$\text{\$						_		
Potassium ppm ASTM D5185m 2-0 0				· · · · · · · · · ·				
Potassium ppm ASTM D5185m 2-0 0	CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	0		
Particles >4µm	There is a light amount of silt (particulates < 14 microns in size)	Potassium	ppm	ASTM D5185m	>20	0		
Particles >4µm		Water		WC Method	>0.1	NEG		
Particles >14µm		Particles >4µm		ASTM D7647	>5000	7035		
Particles >21µm Particles >38µm ASTM D7647 >40 64 Particles >38µm ASTM D7647 >50 7 Particles >38µm ASTM D7647 >50 7 Particles >571µm ASTM D7647 >50 0 Particles >71µm ASTM D7647 >50 0 Oil Cleanliness ISO 4406 (c) 5191714 20/18/15 Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML		Particles >6µm		ASTM D7647	>1300	1878		
Particles >38µm Particles >38µm Particles >71µm ASTM D7647 >10 7		Particles >14µm		ASTM D7647	>160	169		
Particles > 71 \mu ASTM D7647 > 3		Particles >21µm		ASTM D7647	>40	4 64		
Oil Cleanliness ISO 4406 (c) 51917/14 A 2018/15				ASTM D7647	>10	7		
Silt scalar *Visual NONE LIGHT Debris scalar *Visual NONE LIGHT Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML						0		
Debris Scalar *Visual NONE NONE NONE Sand/Dirt Sand/Dirt Scalar *Visual NONE								
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NOR						_		
Appearance								
Codor Scalar *Visual NORML NORML NORML Scalar *Visual >0.1 NEG								
Emulsified Water scalar *Visual >0.1 NEG								
Sodium ppm ASTM D5185m 5 0								
Boron ppm ASTM D5185m 5 0			Scalai	VISUAI	>0.1	NEG		
Boron ppm ASTM D5185m 5 0	FLUID CONDITION	Sodium	ppm	ASTM D5185m		0		
Barium ppm ASTM D5185m 5 0					5	0		
Molybdenum ppm ASTM D5185m 5 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 25 0 Calcium ppm ASTM D5185m 200 47 Phosphorus ppm ASTM D5185m 300 331 Zinc ppm ASTM D5185m 370 417 Sulfur ppm ASTM D5185m 2500 744 Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34	·					0		
Magnesium ppm ASTM D5185m 25 0 Calcium ppm ASTM D5185m 200 47 Phosphorus ppm ASTM D5185m 300 331 Zinc ppm ASTM D5185m 370 417 Sulfur ppm ASTM D5185m 2500 744 Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34	suitable for further service.	Molybdenum		ASTM D5185m	5	0		
Calcium ppm ASTM D5185m 200 47 Phosphorus ppm ASTM D5185m 300 331 Zinc ppm ASTM D5185m 370 417 Sulfur ppm ASTM D5185m 2500 744 Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34		Manganese	ppm	ASTM D5185m		0		
Phosphorus ppm ASTM D5185m 300 331 Zinc ppm ASTM D5185m 370 417 Sulfur ppm ASTM D5185m 2500 744 Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34		Magnesium	ppm	ASTM D5185m	25	0		
Zinc ppm ASTM D5185m 370 417 Sulfur ppm ASTM D5185m 2500 744 Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34		Calcium	ppm	ASTM D5185m	200	47		
Sulfur ppm ASTM D5185m 2500 744 Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34		Phosphorus		ASTM D5185m	300	331		
Acid Number (AN) mg KOH/g ASTM D8045 0.57 0.34		Zinc	ppm	ASTM D5185m	370	417		
		Sulfur	ppm	ASTM D5185m	2500	744		
Visc @ 40°C cSt ASTM D445 32 32.2		Acid Number (AN)	mg KOH/g			0.34		
		Visc @ 40°C	cSt	ASTM D445	32	32.2		





Certificate L2367

Laboratory Sample No.

: ARI0006849 Lab Number : 06083047 Unique Number : 10870492 Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 07 Feb 2024 **Tested**

: 08 Feb 2024 : 08 Feb 2024 - Wes Davis Diagnosed

INSITUFORM TECHNOLOGIES, INC 709 EAST ORDNANCE ROAD SUITE 501

BALTIMORE, MD US 21226

Contact: ALBERT FRIEDRICH AFRIEDRICH@INSITUFORM.COM T: (240)388-1832

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: