

## **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL



#### Area {UNASSIGNED} Machine Id MACK 628 Component

1 Diesel Engine Fluid NOT GIVEN (--- GAL)

#### DIAGNOSIS

## Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

				Nov2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0832960		
Sample Date		Client Info		02 Nov 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	J	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>120	7		
Chromium	ppm	ASTM D5185m	>20	0		
Nickel	ppm	ASTM D5185m	>5	<1		
Titanium	ppm	ASTM D5185m	>2	0		
Silver	ppm	ASTM D5185m	>2	0		
Aluminum	ppm	ASTM D5185m	>20	2		
Lead	ppm	ASTM D5185m	>40	2		
Copper	ppm	ASTM D5185m	>330	<1		
Tin	ppm	ASTM D5185m	>15	<1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		6		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		62		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		911		
Calcium	nnm					
	ppiii	ASTM D5185m		1100		
Phosphorus	ppm	ASTM D5185m ASTM D5185m		1100 998		
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		1100 998 1296		 
Phosphorus Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		1100 998 1296 3234	  	
Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	1100 998 1296 3234 current	   history1	   history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	limit/base	1100 998 1296 3234 current 4	   history1	   history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	limit/base	1100 998 1296 3234 current 4 1	   history1 	   history2 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20	1100 998 1296 3234 current 4 1 2	   history1  	   history2  
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	1100 998 1296 3234 current 4 1 2 current	   history1   history1	   history2   history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	limit/base >25 >20 limit/base >4	1100 998 1296 3234 current 4 1 2 current 0.4	  history1    history1 	   history2   history2 
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm % Abs/cm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >4 >20	1100 998 1296 3234 current 4 1 2 current 0.4 8.8	   history1   history1  history1	   history2   history2  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm pm pm kbs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >4 >20 >30	1100 998 1296 3234 <b>current</b> 4 1 2 <b>current</b> 0.4 8.8 19.5	   history1   history1  history1 	   history2   history2  history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm % Abs/cm Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	limit/base >25 >20 limit/base >4 >20 >30 limit/base	1100 998 1296 3234 current 4 1 2 current 0.4 8.8 19.5 current	  history1  history1  history1  history1	history2 history2 history2 history2 history2 history2 history2 history2
Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7415	limit/base >25 >20 limit/base >4 >20 >30 limit/base >25	1100 998 1296 3234 current 4 1 2 current 0.4 8.8 19.5 current 16.0	   history1    history1   history1  history1	history2 history2 history2 history2 history2 history2 history2 history2



# **OIL ANALYSIS REPORT**





VISUAL		method	limit/base	e current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPER	ΓIES	method	limit/base	e current	history1	history2
Visc @ 100°C	cSt	ASTM D445		13.0		
GRAPHS						
Ferrous Alloys						
10 iron						
8 - Research chromium						
Ę						
4						
2						
2						
0		*****	57			
Vov2/2			Vov2/2			
Non-forrous Mota	lc.					
10 <sub>1</sub>						
copper						
8 - measure tin						
6-						
Ed.						
4						
2 -						
5/23 +			2/23			
Noví			Nov			
Viscosity @ 100°C	2			Base Number		
18				9.0 <sub>T</sub>		
17- Abnormal				8.0		
16			(B/HC	7.0		
ନ୍ଦି 15-			M Bu	5.0-		
50 14 -			mber	4.0		
13			se Nu	3.0-		
Abnormal 12			a a	2.0		
11				0.0		
5/23			2/23 -	2/23		2/23 -
Novi			Nov	Novi		Novž
Laboratory : WearCheck USA -	501 Madi	son Ave., Ca	ry, NC 275	13 <b>A</b> p	ple Valley Was	ste - Corporate
Sample No. : WC0832960 Lab Number : 05998374	Receive Diagnos	a :03 ed :06	Nov 2023 Nov 2023		//1 J Ke	ames Burr Blvd arneysville, WV



Unique Number : 10726734 Diagnostician : Wes Davis Test Package : CONST (Additional Tests: TBN) Contact: Jay Gall Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Jay.gall@applevalleywaste.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (304)724-8646 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (304)724-1890

US 25430