

# WEAR NORMAL CONTAMINATION SEVERE FLUID CONDITION ABNORMAL

#### Machine Id SZLG730184 Component Diesel Engine Fluid {not provided} (--- GAL)

#### RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

#### **WEAR**

All component wear rates are normal.

## CONTAMINATION

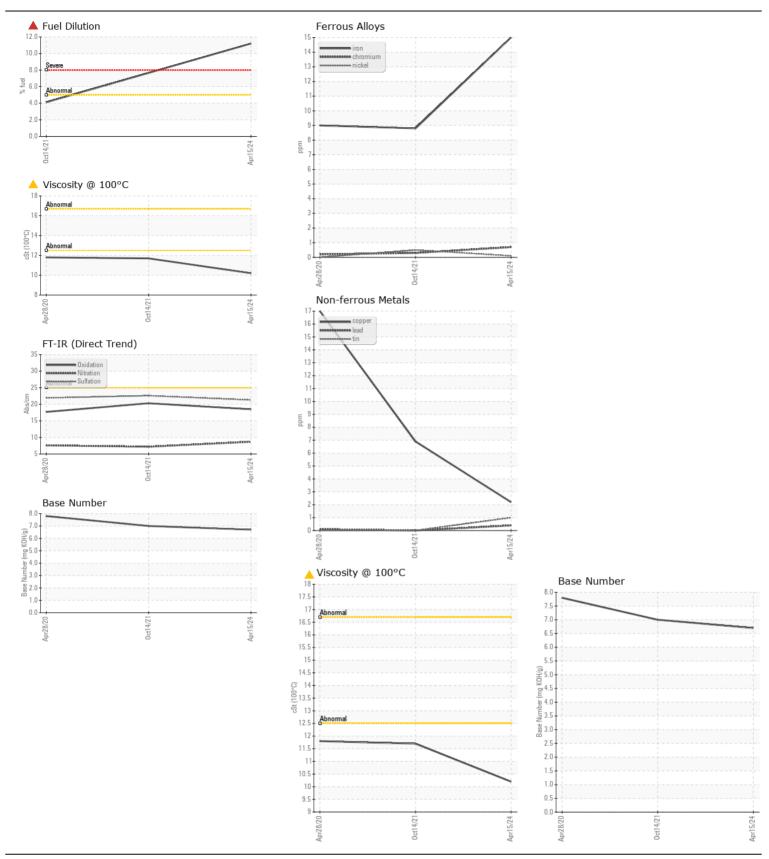
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There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sample Date         Client Info         Is Apr 2024         14 Oct 2021         28 Apr 2020           Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         N/A         Changed         Changed           Filter Age         Client Info         N/A         Changed         Changed         Changed           Sample Status         Client Info         N/A         Changed         Changed         Changed           Iron         ppm         ASTM D5185m         >100         15         9         9           Chromium         ppm         ASTM D5185m         >20         <1         <1         0           Nickel         ppm         ASTM D5185m         >3         <1         0         0           Silver         ppm         ASTM D5185m         >30         21         7         17           Tiranium         ppm         ASTM D5185m         >30         21         0         0           Vaadium         ppm         ASTM D5185m         >30         21         0         0           Vel								
Sample Date         Client Info         15 Apr 2024         14 Oct 2021         28 Apr 2020           Machine Age         hrs         Client Info         0         0         1512           Oil Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         N/A         Changed         Changed           Oil Changed         Client Info         N/A         Changed         Changed           Sample Status         Client Info         N/A         Changed         Changed           Stample Status         SEVERE         MARGINAL         NORMAL           Iron         ppm         ASTM D5185m<>20         <1         <1         0           Nickel         ppm         ASTM D5185m<>20         <1         <1         0           Silver         ppm         ASTM D5185m<>33         <1         0         0           Copper         pm         ASTM D5185m<>330         22         7         17           Tin         ppm         ASTM D5185m<>330         22         <1         0         0           Vanadium         ppm         ASTM D5185m<>20         5         1         0         0	Test	UOM	Method	Limit/Abn	Current	History1	History2	
Machine Age         hrs         Client Info         6868         0         1512           Oil Age         hrs         Client Info         0         0         0           Filter Age         hrs         Client Info         N/A         Changed         Changed           Oil Changed         Client Info         N/A         Changed         Changed           Sample Status         Client Info         N/A         Changed         Changed           Iron         ppm         ASTM D5185m         >100         15         9         9           Chromium         ppm         ASTM D5185m         >20         <1         <1         0           Silver         ppm         ASTM D5185m         >20         <1         <1         0         0           Aluminum         ppm         ASTM D5185m         >20         5         4         6           Lead         ppm         ASTM D5185m         >30         <1         0         0         0           Vanadium         ppm         ASTM D5185m         >20         Z         11         0         0           Veltow Metal         scalar         "Visual         NONE         NONE         NONE         NONE <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>WC0911089</th> <th>WC0614764</th> <th>WC0452274</th>	Sample Number		Client Info		WC0911089	WC0614764	WC0452274	
Oil Age         hrs         Client Info         0         0         0           Filter Age         hrs         Client Info         N/A         Changed         Changed           Filter Changed         Client Info         N/A         Changed         Changed           Sample Status         SEVERE         MARGINAL NORMAL           Iron         ppm         ASTM D5185m         >100         15         9         9           Chromium         ppm         ASTM D5185m         >20         1         <1         <1           Nickel         ppm         ASTM D5185m         >3         <1         0         0           Aluminum         ppm         ASTM D5185m         >3         <1         0         0           Aluminum         ppm         ASTM D5185m         >330         2         7         17           Trin         ppm         ASTM D5185m         >10         0         0         0           Vanadium         ppm         ASTM D5185m         >25         7         4         5           Potassium         ppm         ASTM D5185m         >20         2         <1         <1         <1           Valadium         NONE	Sample Date		Client Info		15 Apr 2024	14 Oct 2021	28 Apr 2020	
Filter Age OIhrsClient InfoN/AChangedChangedFilter Changed Sample StatusClient InfoN/AChangedChangedIronppmASTM D5185m>1001599ChromiumppmASTM D5185m>20<1<1<1NickelppmASTM D5185m>20<1<1<10TitaniumppmASTM D5185m>20<1<100AluminumppmASTM D5185m>3<1000AluminumppmASTM D5185m>30<100<10CopperppmASTM D5185m>40<10000VanadiumppmASTM D5185m>100000VanadiumppmASTM D5185m>100000VanadiumppmASTM D5185m>202<1<111Veltow Metalscalar"VisualNONENONENONENONENONENONESiliconppmASTM D5185m>202<1<1<1110VataerwC Methodo.2NEG	Machine Age	hrs	Client Info		6868	0	1512	
Oil Changed Filter Changed Sample StatusClient Info Client InfoN/AChanged KAR Changed SEVERChanged Changed MARGINALChanged Changed MARGINALChanged Changed MARGINALChanged Changed MARGINALChanged Changed MARGINALNORMALIronppmASTM D5185m ASTM D5185m Silver>10015999ChromiumppmASTM D5185m ASTM D5185m Silver>20<1<1<10NickelppmASTM D5185m ASTM D5185m Silver>30<1000AluminumppmASTM D5185m ASTM D5185m Silver>30271717TinppmASTM D5185m ASTM D5185m<10000VanadiumppmASTM D5185m ASTM D5185m>20S4500VanadiumppmASTM D5185m ASTM D5185m>202<1<110Vellow Metalscalar"VisualNONENONENONENONENONESiliconppmASTM D5185m ASTM D5185m VE223.77.27.65SulfationAbs/cm'ASTM D5185m ASTM D5185mS221.1<1<11.0ValueveC Method VeC MethodNONENONENONENONENONENONENONESulfationAbs/cm'ASTM D5185mA021.322.621.9SNONESul	Oil Age	hrs	Client Info		0	0	0	
Filter Changed Sample StatusClient InfoN/A SEVEREChanged MARGINALChanged NORMALIronppmASTM D5185m<>1001599ChromiumppmASTM D5185m<>20<1<1<1NickelppmASTM D5185m>20<1<1<1NickelppmASTM D5185m>20<1<1<10SilverppmASTM D5185m>3<1000AluminumppmASTM D5185m>205466LeadppmASTM D5185m>330271717TinppmASTM D5185m>330271717TinppmASTM D5185m>1000VanadiumppmASTM D5185m>1000Vinte Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>202<1<1.0WaterWC Method>0.2NEGNEGNEGGlycolWC Method>0.2NEGNEGNEGSolifationAbs/tmm'ASTM D78153021.322.621.9Silitscalar*VisualNONENONENONENONESamd/Dirtscalar*VisualNORENONENONENONEAppearance<	Filter Age	hrs	Client Info		0	0	0	
Sample Status         SEVERE         MARGINAL         NORMAL           Iron         ppm         ASTM D5185m<>100         15         9         9           Chromium         ppm         ASTM D5185m<>20         <1         <1         <1         0           Nickel         ppm         ASTM D5185m         >4         <1         <1         0         0           Silver         ppm         ASTM D5185m         >20         5         4         0         0         0           Aluminum         ppm         ASTM D5185m         >30         21         0         0         0           Lead         ppm         ASTM D5185m         >30         2         7         17         17           Tin         ppm         ASTM D5185m         >30         2         7         17         17           Tin         ppm         ASTM D5185m         >10         0	Oil Changed		Client Info		N/A	Changed	Changed	
Iron         ppm         ASTM D5185m         >100         15         9         9           Chromium         ppm         ASTM D5185m         >20         <1         <1         <1         <1           Nickel         ppm         ASTM D5185m         >4         <1         <1         0           Titanium         ppm         ASTM D5185m         >3         <1         0         0           Aluminum         ppm         ASTM D5185m         >30         21         <1         0         0           Aluminum         ppm         ASTM D5185m         >30         22         7         17           Tin         ppm         ASTM D5185m         >15         1         0         0           Vanadium         ppm         ASTM D5185m         >15         1         0         0           Vanadium         ppm         ASTM D5185m         >20         2         7         4         5           Potassium         ppm         ASTM D5185m         >20         2         <1         <1         <1         <1<           Fuel         %         ASTM D5185m         >20         2         <1         <1<         <1<         <1< <t< th=""><th>Filter Changed</th><th></th><th>Client Info</th><th></th><th>N/A</th><th>Changed</th><th>Changed</th></t<>	Filter Changed		Client Info		N/A	Changed	Changed	
Chromium         ppm         ASTM D5185m         >20         <1	Sample Status				SEVERE	MARGINAL	NORMAL	
Chromium         ppm         ASTM D5185m         >20         <1								
Nickel         ppm         ASTM D5185m         >4         <1	Iron	ppm	ASTM D5185m	>100	15	9	9	
Titanium         ppm         ASTM D5185m         <1	Chromium	ppm	ASTM D5185m	>20	<1	<1	<1	
Silver         ppm         ASTM D5185m         >3         <1	Nickel	ppm	ASTM D5185m	>4	<1	<1	0	
Aluminum         ppm         ASTM D5185m         >20         5         4         6           Lead         ppm         ASTM D5185m         >40         <1         0         <1           Copper         ppm         ASTM D5185m         >330         2         7         17           Tin         ppm         ASTM D5185m         >1         0         0           Vanadium         ppm         ASTM D5185m         <1         0         0           Wite Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Silicon         ppm         ASTM D5185m<>25         7         4         5           Potassium         ppm         ASTM D5185m<>20         2         <1         <1         1           Fuel         %         ASTM D5185m<>20         2         <1         <1         1         <1<          4         1<         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG         NEG         S         21.9         S	Titanium	ppm	ASTM D5185m		<1	<1	0	
Lead         ppm         ASTM D5185m         >40         <1	Silver	ppm	ASTM D5185m	>3	<1	0	0	
Copper         ppm         ASTM D5185m         >330         2         7         17           Tin         ppm         ASTM D5185m<>15         1         0         0           Vanadium         ppm         ASTM D5185m         <1         0         0           White Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Silicon         ppm         ASTM D5185m<>25         7         4         5           Potassium         ppm         ASTM D5185m<>20         2         <1         <1           Katr         %         ASTM D5185m<>20         2         <1         <1           Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         >0.2         NEG         NEG         NEG           Sott %         %         *ASTM D7624<>20         8.7         7.2         7.6           Sulfation         Abs/.tm< *ASTM D7614<>30         21.3         22.6         21.9           Silt         scalar         *Visual	Aluminum	ppm	ASTM D5185m	>20	5	4	6	
Tin         ppm         ASTM D5185m         >15         1         0         0           Vanadium         ppm         ASTM D5185m         <         <1         0         0           White Metal         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Silicon         ppm         ASTM D5185m<>20         2         <1         <1         <1           Potassium         ppm         ASTM D5185m<>20         2         <1         <1         <1.0           Water         ppm         ASTM D5185m<>20         2         <1         <1.1         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG         SEG           Solt %         %         'ASTM D7844<>3         0.2         0.1         0.1         0.1           Nitration         Abs/cm< 'ASTM D7624<>20         8.7         7.2         7.6         Sulfation         Abs/cm< 'ASTM D7624<>20         8.7         7.2         7.6           Sulfation         Abs/cm< 'ASTM D7624<>20         8.7         7.2		ppm	ASTM D5185m	>40	<1	0		
Vanadium         ppm         ASTM D5185m         <1	Copper	ppm	ASTM D5185m	>330	2	7	17	
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>202<1<1Fuel%ASTM D5185m>202<1<1Fuel%ASTM D5185m>20NEGNEGNEGGlycolWC Method>0.2NEGNEGNEGSoot %%'ASTM D7624>208.77.27.6SulfationAbs/.tmm'ASTM D715>3021.322.621.9Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNORLNORMLNORMLNORMLAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLBariumppmASTM D5185m0000MolybdenumppmASTM D5185m108113107ManganeseppmASTM D5185m1181661596ZincppmASTM D5185m1181661596ZincppmASTM D5185m1181661596ZincppmASTM D5185m1	Tin	ppm	ASTM D5185m	>15	1	0	0	
Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Silicon         ppm         ASTM D5185m<>20         2         <1         <1           Potassium         ppm         ASTM D5185m<>20         2         <1         <1           Fuel         %         ASTM D5185m<>20         ▲         11.2         ▲         4.1         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG         NEG           Glycol         WC Method         >0.2         0.1         0.1         0.1           Nitration         Abs/cm< *ASTM D7824         >30         0.2         0.1         0.1           Nitration         Abs/tmm< *ASTM D7814         >30         21.3         22.6         21.9           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NORML         NORML         NORML           Appearance         scalar         *Visual         NORM         NORML         NORML         NORML           Boron         ppm         ASTM D5185m         0	Vanadium	ppm	ASTM D5185m		<1	0	0	
Silicon         ppm         ASTM D5185m<>25         7         4         5           Potassium         ppm         ASTM D5185m<>20         2         <1         <1           Fuel         %         ASTM D3524<>5         ▲ 11.2         ▲ 4.1         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         >0.2         NEG         NEG         NEG           Soot %         %         *ASTM D7844<>3         0.2         0.1         0.1           Nitration         Abs/cm         *ASTM D7824<>20         8.7         7.2         7.6           Sulfation         Abs/tm         *ASTM D7815<>30         21.3         22.6         21.9           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NORML         NORML           Appearance         scalar         *Visual         NORM         NORML         NORML         NORML           Boron         ppm         ASTM D5185m         8         9         10           Boron         ppm </th <th>White Metal</th> <th>scalar</th> <th>*Visual</th> <th>NONE</th> <th>NONE</th> <th>NONE</th> <th>NONE</th>	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Potassium         ppm         ASTM D5185m         >20         2         <1	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Potassium         ppm         ASTM D5185m         >20         2         <1					_		_	
Fuel       %       ASTM D3524       >5       A 11.2       A 4.1       <1.0								
Water         WC Method         >0.2         NEG         NEG         NEG         NEG           Glycol         WC Method         NEG         NEG         NEG         NEG           Soot %         %         *ASTM D7844         >3         0.2         0.1         0.1           Nitration         Abs/cm         *ASTM D7844         >3         0.2         0.1         0.1           Nitration         Abs/cm         *ASTM D7844         >3         0.2         0.1         0.1           Sulfation         Abs/.tmm         *ASTM D7844         >30         21.3         22.6         21.9           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NORM         NORML         NORML         NORML           Appearance         scalar         *Visual         NORM         NORML         NORML         NORML           Odor         scalar         *Visual         NORM         NORML         NORML         NORML           Borion         ppm         ASTM D5185m					_			
Glycol         WC Method         NEG         NEG         NEG           Soot %         %         *ASTM D7844         >3         0.2         0.1         0.1           Nitration         Abs/cm         *ASTM D7624         >20         8.7         7.2         7.6           Sulfation         Abs/imm         *ASTM D7614         >30         21.3         22.6         21.9           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NOR         NORML         NORML         NORML         NORML           Appearance         scalar         *Visual         NOR         NORML         NORML         NORML         NORML           Odor         scalar         *Visual         NOR         NORML         NORML         NORML         NORML           Barium         ppm         ASTM D5185m         431         278         304           Barium         pm         ASTM D5185m         108         113         107           Manganese         pm         ASTM D5185		%						
Soot %         %         *ASTM D7844         >3         0.2         0.1         0.1           Nitration         Abs/cm         *ASTM D7624         >20         8.7         7.2         7.6           Sulfation         Abs/lmm         *ASTM D7415         >30         21.3         22.6         21.9           Silt         scalar         *Visual         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NOR         NORE         NONE         NONE           Appearance         scalar         *Visual         NORM         NORML         NORML         NORML           Odor         scalar         *Visual         NOR         NORML         NORML         NORML           Emulsified Water         scalar         *Visual         >0.2         NEG         NEG         NEG           Sodium         ppm         ASTM D5185m         431         278         304           Barium         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m<				>0.2	-			
Nitration         Abs/cm         *ASTM D7624         >20         8.7         7.2         7.6           Sulfation         Abs/.1mm         *ASTM D7624         >30         21.3         22.6         21.9           Silt         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Debris         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Sand/Dirt         scalar         *Visual         NONE         NONE         NONE         NONE         NONE           Appearance         scalar         *Visual         NORML         NORML         NORML         NORML         NORML         NORML           Odor         scalar         *Visual         NOR         NORML         NORML         NORML         NORML         NORML           Emulsified Water         scalar         *Visual         >0.2         NEG         NEG         NEG           Sodium         ppm         ASTM D5185m         431         278         304           Barium         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m	,	0/		0				
SulfationAbs/.1mm*ASTM D7415>3021.322.621.9Siltscalar*VisualNONENONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m8910BoronppmASTM D5185m0000MolybdenumppmASTM D5185m108113107ManganeseppmASTM D5185m496558467CalciumppmASTM D5185m1181661596ZincppmASTM D5185m1530834698SulfurppmASTM D5185m408335852055OxidationAbs/.1mm*ASTM D7144>2518.520.317.7Base Number (BN)mg KOHgASTM D28966.777.8		/ -			-	-		
Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m431278304BariumppmASTM D5185m000MolybdenumppmASTM D5185m108113107ManganeseppmASTM D5185m<11<1< <td>&lt;1</td> PhosphorusppmASTM D5185m1181661596ZincppmASTM D5185m1530834698SulfurppmASTM D5185m18.520.317.7Base Number (BN)mg KOHgASTM D28966.777.8	<1							
Debrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m891010BoronppmASTM D5185m0000MolybdenumppmASTM D5185m0000MolybdenumppmASTM D5185m108113107ManganeseppmASTM D5185m496558467CalciumppmASTM D5185m1181661596ZincppmASTM D5185m1530834698SulfurppmASTM D5185m408335852055OxidationAbs/Imm*ASTM D7144>2518.520.317.7Base Number (BN)mg KOHgASTM D28966.777.8					-			
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m8910BoronppmASTM D5185m431278304BariumppmASTM D5185m000MolybdenumppmASTM D5185m108113107ManganeseppmASTM D5185m<11<1<1MagnesiumppmASTM D5185m496558467CalciumppmASTM D5185m1181661596ZincppmASTM D5185m1530834698SulfurppmASTM D5185m20.317.7Base Number (BN)mg KOHgASTM D28966.777.8					-			
Appearance         scalar         *Visual         NORML					_			
Odorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGSodiumppmASTM D5185m8910BoronppmASTM D5185m431278304BariumppmASTM D5185m000MolybdenumppmASTM D5185m108113107ManganeseppmASTM D5185m<1<1<1MagnesiumppmASTM D5185m496558467CalciumppmASTM D5185m1177715581214PhosphorusppmASTM D5185m1530834698SulfurppmASTM D5185m18.520.550xidationAbs/1mm*ASTM D714>2518.520.317.7Base Number (BN)mg KOHgASTM D28966.777.87.8					-			
Emulsified Water         scalar         *Visual         >0.2         NEG         NEG         NEG           Sodium         ppm         ASTM D5185m         8         9         10           Boron         ppm         ASTM D5185m         431         278         304           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         108         113         107           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         496         558         467           Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm         *ASTM D2896         6.7         7         7.8					-			
Sodium         ppm         ASTM D5185m         8         9         10           Boron         ppm         ASTM D5185m         431         278         304           Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         108         113         107           Manganese         ppm         ASTM D5185m         <108					-			
Boron         ppm         ASTM D5185m         431         278         304           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         108         113         107           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         496         558         467           Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm *ASTM D7414 >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8		scalar	visual	>0.2	NEG	NEG	NEG	
Boron         ppm         ASTM D5185m         431         278         304           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         108         113         107           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         496         558         467           Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm *ASTM D7414 >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8	Sodium	ppm	ASTM D5185m		8	9	10	
Barium         ppm         ASTM D5185m         0         0         0           Molybdenum         ppm         ASTM D5185m         108         113         107           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         496         558         467           Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm *ASTM D7414 >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8			ASTM D5185m			-		
Molybdenum         ppm         ASTM D5185m         108         113         107           Manganese         ppm         ASTM D5185m         <1         <1         <1           Magnesium         ppm         ASTM D5185m         496         558         467           Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm<*ASTM D7414<>25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8								
Manganese         ppm         ASTM D5185m         <1					108		107	
Magnesium         ppm         ASTM D5185m         496         558         467           Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8	-							
Calcium         ppm         ASTM D5185m         1777         1558         1214           Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8	-							
Phosphorus         ppm         ASTM D5185m         1181         661         596           Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8	•		ASTM D5185m				1214	
Zinc         ppm         ASTM D5185m         1530         834         698           Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8					1181		596	
Sulfur         ppm         ASTM D5185m         4083         3585         2055           Oxidation         Abs/.1mm         *ASTM D7414         >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8	-							
Oxidation         Abs/.1mm         *ASTM D7414         >25         18.5         20.3         17.7           Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8	Sulfur		ASTM D5185m				2055	
Base Number (BN)         mg KOH/g         ASTM D2896         6.7         7         7.8				>25				
	Visc @ 100°C	cSt	ASTM D445		<b>10.2</b>	11.7	11.8	



**DOLE FRESH FRUIT** Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : WC0911089 Received PO BOX 725, ATTN: MAINTENANCE AND REPAIR : 22 May 2024 Lab Number : 06188484 Tested : 28 May 2024 NEW CASTLE, DE Diagnosed Unique Number : 11045236 : 28 May 2024 - Wes Davis US 19720 Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: LUIS LAPIERRE Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. luis.lapierre@dole.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (302)652-6344 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (302)652-6061

Contact/Location: LUIS LAPIERRE - DOLWIL Page 2 of 2