Sample Rating Trend



PROBLEM SUMMARY



Machine Id

ISDO2403

Diesel Engine Fluid {not provided} (--- GAL)

COMPONENT CONDITION SUMMARY

🔺 Flasł	n Point	(°C)				
252 T						
250						
248						
246						- T -
ې 244 -						
242			 		 	_
244 242 242 242 240						
238						
236						- + -
234						
232						
0/24						0/24
Mar10/24						Mar10/24
2						2

RECOMMENDATION	PROBLEMATIC TEST RESULTS					
This is a baseline read-out on the submitted sample.	Sample Status			SEVERE		
•	COC Flash Point	°C	ASTM D92*	4 242		

Customer Id: ASTWES Sample No.: WC Lab Number: 02621283 Test Package: ISDO



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 <u>gloria.gonzalez@wearcheck.com</u> There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



 \mathbf{x}

Machine Id

ISDO2403 Component

Component Diesel Engine Fluid {not provided} (--- GAL)

DIAGNOSIS

A Recommendation

This is a baseline read-out on the submitted sample.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		wc		
Sample Date		Client Info		10 Mar 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				SEVERE		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	13		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>4	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)	>3	0		
Aluminum	ppm	ASTM D5185(m)	>20	3		
Lead	ppm	ASTM D5185(m)	>40	<1		
Copper	ppm	ASTM D5185(m)	>330	<1		
Tin	ppm	ASTM D5185(m)	>15	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		161		
Barium	ppm	ASTM D5185(m)		0		
Molybdenum	ppm	ASTM D5185(m)		72		
Manganese						
	ppm	ASTM D5185(m)		<1		
Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m)		<1 490		
-						
Magnesium	ppm	ASTM D5185(m)		490		
Magnesium Calcium Phosphorus	ppm ppm	ASTM D5185(m) ASTM D5185(m)		490 1189		
Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		490 1189 890		
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		490 1189 890 1046		
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	490 1189 890 1046 2359		
Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	limit/base >25	490 1189 890 1046 2359 <1	 	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method		490 1189 890 1046 2359 <1 current	 history1	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)		490 1189 890 1046 2359 <1 <u>current</u> 6 1 4	 history1	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25	490 1189 890 1046 2359 <1 <u>current</u> 6 1 4 0.9	 history1 	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25 >20	490 1189 890 1046 2359 <1 <u>current</u> 6 1 4	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	>25 >20 >5	490 1189 890 1046 2359 <1 <u>current</u> 6 1 4 0.9	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D5185(m)	>25 >20 >5 >0.2	490 1189 890 1046 2359 <1 <u>current</u> 6 1 4 0.9 0.016	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>25 >20 >5 >0.2	490 1189 890 1046 2359 <1 current 6 1 4 0.9 0.016 164	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel Water ppm Water Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5021*	>25 >20 >5 >0.2 >2000	490 1189 890 1046 2359 <1 current 6 1 4 0.9 0.016 164 0.0	 history1 	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel Water ppm Water Glycol INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm % %	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304*	>25 >20 >5 >0.2 >2000	490 1189 890 1046 2359 <1 current 6 1 4 0.9 0.016 164 0.0 current	 history1 history1	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Fuel Water ppm Water Glycol INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm % % %	ASTM D5185(m) ASTM D504* ASTM D6304* ASTM D6304* ASTM D6304*	>25 >20 >5 >0.2 >2000 limit/base >3	490 1189 890 1046 2359 <1 Current 6 1 4 0.9 0.016 164 0.0 Current 0.1	 history1 history1 history1	 history2 history2



OIL ANALYSIS REPORT

Flash Point (°C)		FLUID DEGRADA	TION	method	limit/base	current	history1	history2
		Oxidation	Abs/.1mm	ASTM D7414*	>25	17.3		
		Acid Number (AN)	mg KOH/g	ASTM D974*		2.68		
		Base Number (BN)	mg KOH/g	ASTM D2896*		6.60		
10		VISUAL		method	limit/base	current	history1	history2
30		White Metal	scalar	Visual*	NONE	NONE		
	0/24	Yellow Metal	scalar	Visual*	NONE	NONE		
Mar10/24	Mar10/24	Precipitate	scalar	Visual*	NONE	NONE		
Fuel Diluties		Silt	scalar	Visual*	NONE	NONE		
Fuel Dilution		Debris	scalar	Visual*	NONE	NONE		
0 - O		Sand/Dirt	scalar	Visual*	NONE	NONE		
		Appearance	scalar	Visual*	NORML	NORML		
0 - Abnormal		Odor	scalar	Visual*	NORML	NORML		
.0		Emulsified Water	scalar	Visual*	>0.2	NEG		
.0-		Free Water	scalar	Visual*		NEG		
.0		FLUID PROPERT	IES	method	limit/base	current	history1	history2
Mar1 0/24	Mar10/24	Visc @ 40°C	cSt	ASTM D7279(m)		93		
_		Visc @ 100°C	cSt	ASTM D7279(m)		13.4		
Glycol Contamination	- 0.25	Viscosity Index (VI)	Scale	ASTM D2270*		144		
8 sodium		COC Flash Point	°C	ASTM D92*	4	4 242		
7-	-0.20	SEDIMENT		method	limit/base	current	history1	history2
5	-0.15	Pentane Insolubles	%	ASTM D893(m)*		0.091		
4		GRAPHS		()				
Nitration mananemes Sulfation 10 -		Non-ferrous Metal	S		Mar10/24			
Marl 0/24	Mar10/24 -	2						
Base Number		o Mar10/24			Mar10/24 -			
.0		Viscosity @ 100°C				Acid Number		
.0 .0		Abnormal			(B/HOX Bw)			
.0		(16) (14) (3) (4) (4) (5) (4) (4) (5) (6) (6) (7) (6) (7) (7) (7) (7) (7) (7) (7) (7			B 2.0			
.0		ق 12 Abnormal			0.0 Acid Number	-		
.0-		10				L.		
	24	Mar10/24			Mar10/24	Mar10/24		Mar10/24
Mar10/24	Mar1 0/24	Mai			Mai	Mai		Mar
ISO 17025:2017 Accredited Laboratory	Sample No. Lab Number Unique Number Test Package		Recei Teste Diagn ts: Perce	ved : 11 d : 25 iosed : 25 ntFuel, TAN	Mar 2024 Apr 2024 Apr 2024 - Kev Man, VI)		WEST CONSHO	ASTM ARBOR DRIVE DHOCKEN, PA US 19428 act: Frank Perri Wearcheck.ca

Report Id: ASTWES [WCAMIS] 02621283 (Generated: 04/25/2024 16:00:08) Rev: 1

Contact/Location: Frank Perri - ASTWES