

OIL ANALYSIS REPORT



Machine Id P23 F550

Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 10W30. Please confirm. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

Light fuel dilution occurring. No other contaminants were detected 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.

	0-2023								
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2			
Sample Number		Client Info		PC					
Sample Date		Client Info		03 Oct 2023					
Machine Age	hrs	Client Info		0					
Oil Age	hrs	Client Info		0					
Oil Changed		Client Info		N/A					
Sample Status				MARGINAL					
CONTAMINAT	ION	method	limit/base	current	history1	history2			
Glycol		WC Method		NEG					
WEAR METAL	S	method	limit/base	current	history1	history2			
Iron	ppm	ASTM D5185(m)	>100	19					
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	<1					
Aluminum	ppm	ASTM D5185(m)	>20	3					
Lead	ppm	ASTM D5185(m)	>40	2					
Copper	ppm	ASTM D5185(m)	>330	2					
Tin	ppm	ASTM D5185(m)	>15	<1					
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)	250	15					
Barium	ppm	ASTM D5185(m)	10	<1					
Molybdenum	ppm	ASTM D5185(m)	100	67					
Manganese	ppm	ASTM D5185(m)		0					
Magnesium	ppm	ASTM D5185(m)	450	676					
Calcium	ppm	ASTM D5185(m)	3000	1332					
Phosphorus	ppm	ASTM D5185(m)	1150	962					
Zinc	ppm	ASTM D5185(m)	1350	1129					
Sulfur	ppm	ASTM D5185(m)	4250	2589					
Lithium	ppm	ASTM D5185(m)		<1					
CONTAMINAN	TS	method	limit/base	current	history1	history2			
Silicon	ppm	ASTM D5185(m)	>25	13					
Sodium	ppm	ASTM D5185(m)		6					
Soulum		ASTM D5185(m)	>20	<1					
	ppm								
Potassium	ppm %	ASTM D7593*	>5	4 .9					
Potassium		ASTM D7593*	>5 limit/base	A.9	 history1	 history2			
Potassium Fuel INFRA-RED									
Potassium Fuel	%	method	limit/base	current	history1	history2			



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10.0 т	Fuel Dilution	FLUID DEGRAI		method	limit/base	current	history1	history2
8.0-	Severe	Oxidation	Abs/.1mm	ASTM D7414*	>25	15.6		
6.0		Base Number (BN)	mg KOH/g	ASTM D2896*	8.5	8.44		
ang % 4 0	Abnormal	VISUAL		method	limit/base	current	history1	history2
2.0-		Emulsified Water	scalar	Visual*	>0.2	NEG		
0.0		Free Water	scalar	Visual*		NEG		
0.0-	0ct3/23 - 0ct3/23 -	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	ö ö	Visc @ 40°C	cSt	ASTM D7279(m)	73	75.5		
	Viscosity @ 40°C	Visc @ 100°C	cSt	ASTM D7279(m)	10.9	11.2		
100 95	Abnormal	Viscosity Index (VI)	Scale	ASTM D2270*	138	138		
90-		GRAPHS						
() 85 - 80 -		Iron (ppm)				Lead (ppm)		
* 75- 75-	Base	250 Severe			100	Severe		
70 - 65 -	Abnormal	200			80	, - 4		
60		Abnormal			E 40	Abnormal		
	0ct3/23 0ct3/23	50 -			20) .		
	Viscosity @ 100°C	0						
¹⁴		0ct3/23			0ct3/23	0ct3/23		0ct3/23
13-	Abnormal	 Aluminum (ppm)			0	Chromium (pp	m)	0
12- 2011-	Bee	⁵⁰ T			50		···· <i>)</i>	
-11 sst (100-c) st (100-c)		40 - Severe			40			
9- 8-	Abnormal	30 - Abnormal)		
7		a Abnormal			20) - Abnormal		-
	043/23	10			10			
	5	0ct3/23			0ct3/23 +	0043/23		0ct3/23
100 -	Viscosity @ 40°C Abnormal	00			Octi	0		Octi
95 -		Copper (ppm)				Silicon (ppm)		
90- 		400 Severe			80			
- 28 - 08 - 08 - 75		300 -			60			
375- 70-	Base	톱 200 -			특.40	Abnormal		
65 -	Abnormal	100-						
601	043/23 +							
	00	0ct3/23			0ct3/23	0ct3/23		0ct3/23
		Viscosity @ 100°C				Base Number		
		14 			14.0) T		
		13 Abnormal			() () () () () () () () () () () () () (
		12 - Base 11 - Base 10 - Abnormal	nnnnnnn	nananananan	un 10 8.0			
		9 Abnormal			ag 6.0 Min 4.0	0		
		8-			as 2.0)		
		0ct3/23			0.0 + 0.0	0ct3/23		0ct3/23 -
		00			00	00		0
,	SACING Laboratory	: WearCheck - C8-11	75 Annle	by Line Bur	lington, ON I	7L 5H9 Petro-Ca	nada Technical/	Behshad Sabah
	Sample No.	: PC	Received	:04	Oct 2023			
	ISO 17025:2017 Lab Number		Diagnos Diagnos		Oct 2023 s Davis		М	ississauga, ON CA L5J 1K2
19	Accredited Unique Number					Fuel, VI)	Contact: E	Behshad Sabah
踐	To discuss this sample report,	contact Customer Serv	rice at 1-8	800-268-213	1.	Be		hfsinclair.com
	Test denoted (*) outside scope Validity of results and interpret							(905)716-2158 (905)403-6740
			campic a			~··		(000) 100 07 40