

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **EX-019** Component **Diesel Engine** Fluid **MOBIL 15W40 (--- GAL)**

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

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.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0705331	WC0411147	WC04871913	
Sample Date		Client Info		04 May 2023	27 Apr 2020	18 Dec 2019	
Machine Age	mls	Client Info		1666 0		0	
Oil Age	mls	Client Info		500	250	0	
Oil Changed		Client Info		Not Changd	Changed	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATION	J	method	limit/base	current	history1	history2	
Fuel		WC Method	>5	<1.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	11	7	2	
Chromium	ppm	ASTM D5185m	>20	<1	<1	0	
Nickel	ppm	ASTM D5185m	>4	0	0	<1	
Titanium	ppm	ASTM D5185m		0	<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	0	
Aluminum	ppm	ASTM D5185m	>20	2	1	2	
Lead	ppm	ASTM D5185m	>40	0	0	1	
Copper	ppm	ASTM D5185m	>330	2	1	<1	
Tin	ppm	ASTM D5185m	>15	0	0	2	
Antimony	ppm	ASTM D5185m			0	5	
Vanadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		0	94	68	
Barium	ppm	ASTM D5185m		0	0	0	
Molybdenum	ppm	ASTM D5185m		55	21	85	
Manganese	ppm	ASTM D5185m		<1	<1	<1	
Magnesium	ppm	ASTM D5185m		859	554	134	
Calcium	ppm	ASTM D5185m		1083	1597	1909	
Phosphorus	ppm	ASTM D5185m		998	790	977	
Zinc	ppm	ASTM D5185m		1237	803	1026	
Sulfur				1207	090	1020	
	ppm	ASTM D5185m		3690	2755	712	
CONTAMINANTS	ppm	ASTM D5185m method	limit/base	3690 current	2755 history1	712 history2	
CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method ASTM D5185m	limit/base >25	3690 current 4	2755 history1	712 history2 7	
CONTAMINANTS Silicon Sodium	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	limit/base >25 >118	3690 current 4 2	2755 history1 5 2	712 history2 7 2	
CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25 >118 >20	3690 current 4 2 1	2755 history1 5 2 2	712 history2 7 2 2	
CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base >25 >118 >20 limit/base	3690 current 4 2 1 current	2755 history1 5 2 2 2 history1	712 history2 7 2 2 history2	
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method *ASTM D7844	limit/base >25 >118 >20 limit/base >3	3690 current 4 2 1 current 0.2	2755 history1 5 2 2 2 history1 0.1	712 history2 7 2 2 history2 0.1	
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm % Abs/cm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624	limit/base >25 >118 >20 limit/base >3 >20	3690 current 4 2 1 current 0.2 8.2	2755 history1 5 2 2 2 history1 0.1 7.9	712 712 7 2 2 history2 0.1 7.2	
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7615	limit/base >25 >118 >20 limit/base >3 >20 >30	3690 current 4 2 1 current 0.2 8.2 18.0	2755 history1 5 2 2 2 history1 0.1 7.9 19.5	712 history2 7 2 2 history2 0.1 7.2 16.6	
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7624 Method	limit/base >25 >118 >20 limit/base >3 >20 >30 limit/base	3690 current 4 2 1 current 0.2 8.2 18.0 current	2755 history1 5 2 2 2 history1 0.1 7.9 19.5 history1	712 history2 7 2 2 history2 0.1 7.2 16.6 history2	
CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7615 method *ASTM D7415	limit/base >25 >118 >20 limit/base >3 >20 >30 limit/base >25	1.201 3690 current 4 2 1 current 0.2 8.2 18.0 current 14.1	2755 history1 5 2 2 2 history1 0.1 7.9 19.5 history1 14.8	712 history2 7 2 2 history2 0.1 7.2 16.6 history2 12.4	



OIL ANALYSIS REPORT

VISUAL



		White Metal	scalar	*\/ieual	NONE	NONE	NONE	NONE
	1	Vollow Motol	scalar	*Vioual	NONE	NONE	NONE	NONE
			Scalar	*Visual	NONE	NONE	NONE	NONE
		Precipitate	Scalar	visual	NONE	NONE	NONE	NONE
		Sit	scalar	visual	NONE	NONE	NONE	NONE
		Debris	scalar	^Visual	NONE	NONE	NONE	NONE
+		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
r27/2	av4/2.	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Ap	Ň	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
C		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
			IFS	method	limit/base	current	history1	history2
		Visc @ 100°C	cSt	ASTM D445	innibacco	12.6	12.9	14.2
		GRAPHS	001	AGTIM DITIO		12.0	12.0	17.6
		Ferrous Allovs						
		12						
27/20		10 - chromium						
Aprá		nickel						
		-						
		ud 6						
		4						
		2						
		0 Lippen - 100	20		23			
		lec1 8,	Apr27/		May4,			
		Non-ferrous Metal	c .					
		10 _T	5					
		copper						
		8 -						
		6						
		Edd						
		4-						
		2		<u>.</u>				
		A DALE OF THE OWNER OF THE DALE OF THE OWNER OWNE						
		0						
		c18/1	0127/2		lay4/2			
			Ag		2			
		Viscosity @ 100°C	;			Base Number		
		17			10.0		1	
		Abnormal			~ 8.0			
		16-			6/HO>			
		8 15 -			E 6.0			
	2	ti 14						
		13 Abnormal			se Nu			
		12 -			2.0	•		
		11			0.0			
		3/19	7/20 -		4/23 -	9/19	//20 -	ł/23 -
		Decl	Apr2		May	Decl	Apr2	May
4	Laboratory	: WearCheck USA - 5	501 Madi	son Ave., Ca	ry, NC 27513		E	.C. PACE CO.
ANAB	Sample No.	: WC0705331	Receive	a :18.	Jul 2023		1811	HOLLINS RD.
TESTING LABORATORY		10562359	Diagnos	tician Dor	n Baldridae		F	10AINORE, VA
Certificate 12367	Test Package	: FLEET (Additional)	Tests: Pr	tCount)	Dalahuye		Contact	EDDIE SFCO
To discuss this	sample report. c	contact Customer Serv	ice at 1-8	300-237-1369	Э.		ESECO@I	ECPACE.COM
* - Denotes tes	t methods that a	re outside of the ISO 1	7025 scc	ppe of accred	litation.		T:	(276)266-5849
Statements of c	conformity to speci	ifications are based on ti	he simple	acceptance of	decision rule (J	ICGM 106:2012)	F:	(540)343-6909

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

Ň

Contact/Location: EDDIE SECO - ECPROA