

# **OIL ANALYSIS REPORT**

Sample Rating Trend





## CITGO PACEMAKER GAS ENGINE OIL 1015 15W40 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

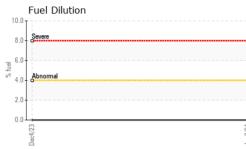
#### Fluid Condition

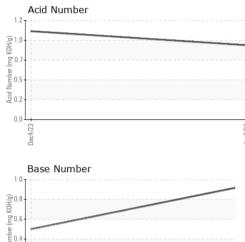
The BN result indicates that there is suitable alkalinity remaining in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

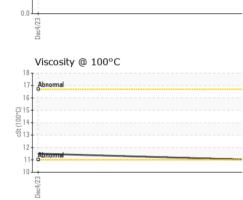
5 15W40 ( GA	L)		Dec2023	Jan2024		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0111966	PCA0111957	
Sample Date		Client Info		02 Jan 2024	04 Dec 2023	
Machine Age	hrs	Client Info		141174	140489	
Oil Age	hrs	Client Info		1014	329	
Oil Changed		Client Info		Not Changd	N/A	
Sample Status				NORMAL	ATTENTION	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	3	<1	
Chromium	ppm	ASTM D5185m	>4	0	0	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>9	2	0	
Lead	ppm	ASTM D5185m	>30	0	0	
Copper	ppm	ASTM D5185m		3	<1	
Tin	ppm	ASTM D5185m	>4	2	2	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<1	0	
Barium	ppm	ASTM D5185m		0	0	
Molybdenum	ppm	ASTM D5185m		0	0	
Vanganese	ppm	ASTM D5185m		0	0	
Magnesium	ppm	ASTM D5185m		<1	1	
Calcium	ppm	ASTM D5185m		14	<b>1</b> 3	
Phosphorus	ppm	ASTM D5185m		657	636	
Zinc	ppm	ASTM D5185m		354	▲ 393	
Sulfur	ppm	ASTM D5185m		1864	1953	
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+100	<1	<1	
Sodium	ppm	ASTM D5185m		0	0	
Potassium	ppm	ASTM D5185m	>20	2	<1	
Fuel	%	ASTM D3524	>4.0	0.0	0.0	
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		0	0	
Nitration	Abs/cm	*ASTM D7624	>20	2.3	2.2	
Sulfation	Abs/.1mm	*ASTM D7415	>30	11.7	11.6	
FLUID DEGRA		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	6.2	5.8	
Acid Number (AN)	mg KOH/g	ASTM D8045		0.90	1.07	
Base Number (BN)	mg KOH/g	ASTM D0045 ASTM D2896		0.94	▲ 0.50	
Dase Muniber (DN)	ing iton/g	AUTINI DZ030		0.54		



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Base 0.2

	VISUAL		method	limit/base	current	history1	history2		
	White Metal	scalar	*Visual	NONE	NONE	NONE			
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE			
	Precipitate	scalar	*Visual	NONE	NONE	NONE			
-	Silt	scalar	*Visual	NONE	NONE	NONE			
	Debris	scalar	*Visual	NONE	NONE	NONE			
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE			
Jan 2/24	Appearance	scalar	*Visual	NORML	NORML	NORML			
Jan	Odor	scalar	*Visual	NORML	NORML	NORML			
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG			
	Free Water	scalar	*Visual		NEG	NEG			
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2		
	Visc @ 100°C	cSt	ASTM D445		11.0	<b>1</b> 1.5			
	GRAPHS								
	Iron (ppm)			6	Lead (ppm)				
	80 Severe			5	0				
Jan2/24	0			4					
1	40			۳ <u>۳</u> 3			-		
	20			2	1				
	0				0				
	Dec4/23			Jan 2/24	Dec4/23		Jan2/24		
				J <sub>6</sub>		)	26		
	Aluminum (ppm)				Chromium (۱ <sup>8</sup> ۲	opm)			
	15 - Severe				6 Severe				
e	Abnormal			ud d	Abnormal				
8	10 - Abnormal			dd	4 <b>-</b>				
	5				2				
					123		/24		
	Dec4/23			Jan 2/24	Dec4/23		Jan2/24		
	Copper (ppm)				Silicon (ppm) 200 - Severe				
	Severe								
	60			15					
	40 Abnormal			튭 10	0 - Abnormal				
	20			5	0				
	0				o L				
	Dec4/23			Jan 2/24	Dec4/23		Jan2/24		
	– Viscosity @ 100°C	;			– Base Numbe	r	,		
	18 Abnormal			1.	0				
-	16			Đ.	8 -				
100-0				<u>ຍິ</u> 0.	6				
1.00	3 12			quan.	4				
	Abnormal			.0. .0. .0. .0. .0. .0. .0. .0. .0. .0.	2				
	10			<b>──</b> 0.	0		24 +		
	Dec4/23			Jan 2/24	Dec4/23		Jan 2/24		
Laboratory Sample No. Lab Number Unique Number Test Package	: 06057454 : 10823403 : MOB 2 ( Additional	Recieve Diagnos Diagnos Tests: Fu	d : 10 ed : 12 tician : We	Jan 2024 Jan 2024 s Davis ercentFuel )		RVEST OPERAT 1242 WES Contact: CHARL	T WIND ROAD HAYSI, VA US 24256		

Test Package : MOB 2 ( Additional Tests: FuelDilution, PercentFuel ) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. cgregory@usacompression.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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