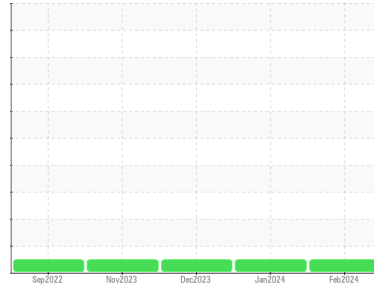


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
Smith Ridge 1

Component
Natural Gas Engine

Fluid
CITGO PACEMAKER GAS ENGIN 1700 SERIES 40W (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. 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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0117139	PCA0111871	PCA0103408
Sample Date	Client Info		06 Feb 2024	03 Jan 2024	04 Dec 2023
Machine Age	hrs	Client Info	184598	183807	183068
Oil Age	hrs	Client Info	184598	183807	183068
Oil Changed		Client Info	Not Changed	Not Changd	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	5	6	2
Chromium	ppm	ASTM D5185m >4	<1	<1	<1
Nickel	ppm	ASTM D5185m >2	<1	0	0
Titanium	ppm	ASTM D5185m	1	2	2
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	2	2	<1
Lead	ppm	ASTM D5185m >30	5	<1	0
Copper	ppm	ASTM D5185m >35	12	15	14
Tin	ppm	ASTM D5185m >4	<1	<1	0
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	<1	<1
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	<1	2	0
Manganese	ppm	ASTM D5185m	<1	0	<1
Magnesium	ppm	ASTM D5185m	21	19	20
Calcium	ppm	ASTM D5185m	1404	1396	1335
Phosphorus	ppm	ASTM D5185m	314	326	287
Zinc	ppm	ASTM D5185m	382	351	360
Sulfur	ppm	ASTM D5185m	2469	2573	2483

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	2	2	2
Sodium	ppm	ASTM D5185m	10	4	7
Potassium	ppm	ASTM D5185m >20	2	3	<1
Fuel	%	ASTM D3524 >4.0	0.3	0.0	0.0

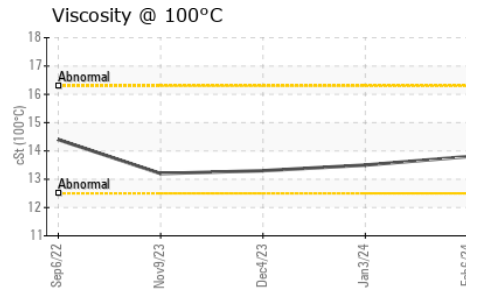
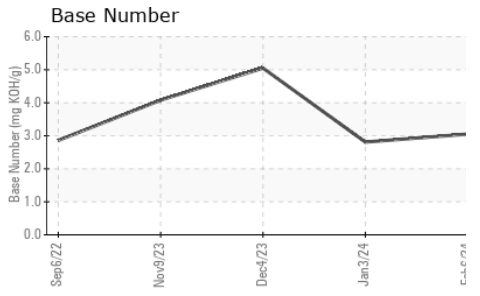
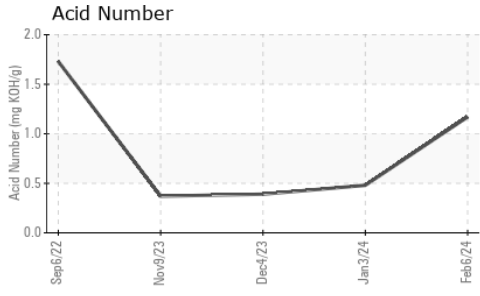
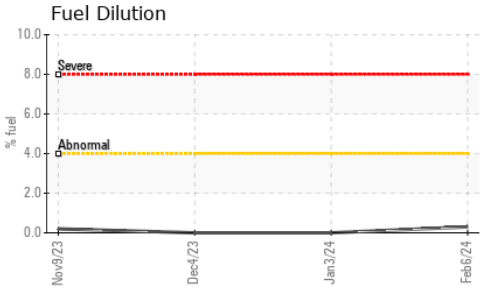
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	5.5	4.6	4.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.0	16.2	15.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.2	11.1	9.4
Acid Number (AN)	mg KOH/g	ASTM D8045	1.17	0.48	0.39
Base Number (BN)	mg KOH/g	ASTM D2896	3.05	2.81	5.05

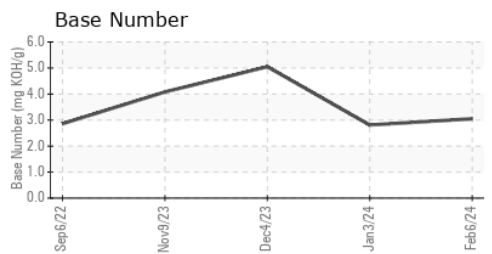
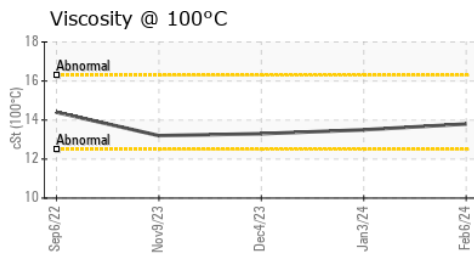
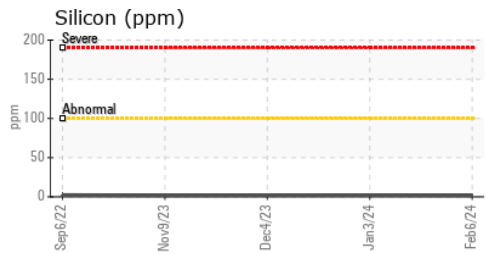
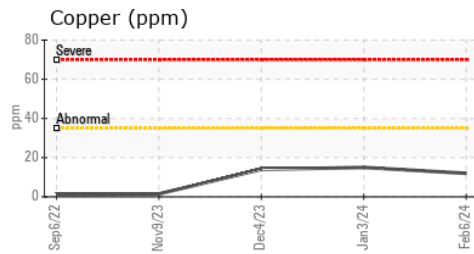
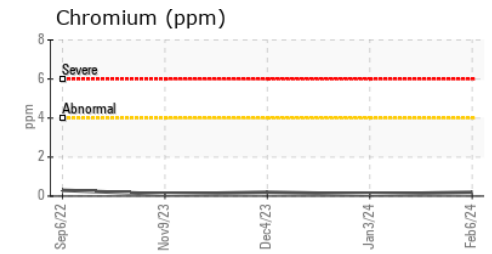
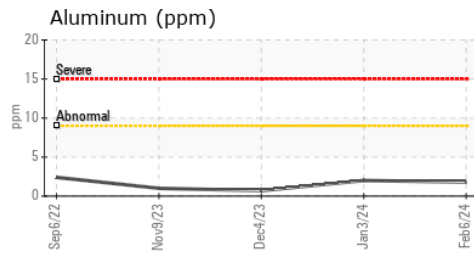
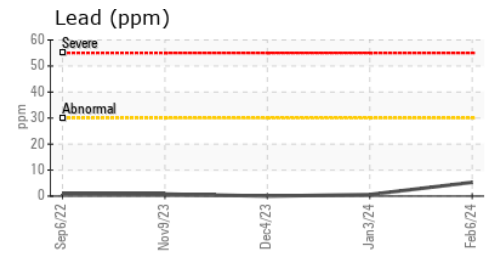
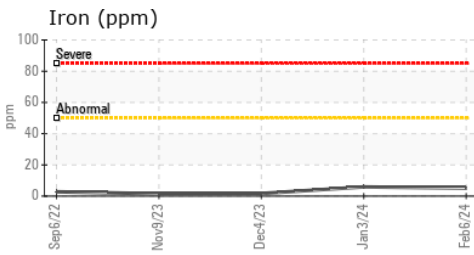
OIL ANALYSIS REPORT



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	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.8	13.5	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0117139 **Received** : 16 Feb 2024
Lab Number : **06092444** **Tested** : 20 Feb 2024
Unique Number : 10885297 **Diagnosed** : 20 Feb 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

ENERVEST OPERATING - SMITH RIDGE
 2305 SMITH RIDGE
 MCCLURE, VA
 US 24269
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - 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)