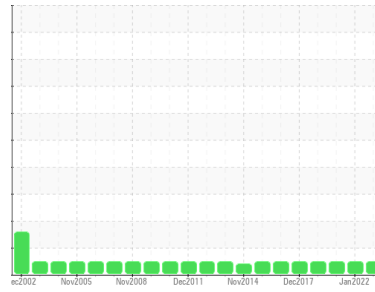




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id

GENERAC NSC EAST SPRINGFIELD

Component

Liquid Petroleum Gas

Fluid

SHELL ROTELLA T 15W40 (4 QTS)

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 acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0848580	WC0647406	WC0395636
Sample Date	Client Info		29 Jan 2024	17 Jan 2022	22 Nov 2019
Machine Age	hrs	Client Info	445	0	372
Oil Age	hrs	Client Info	0	12	0
Oil Changed	Client Info		Changed	Changed	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 >120	0	2	2
Chromium	ppm	ASTM D5185m >10	0	<1	0
Nickel	ppm	ASTM D5185m >5	0	0	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m >5	0	<1	0
Aluminum	ppm	ASTM D5185m >20	2	2	2
Lead	ppm	ASTM D5185m >40	0	1	<1
Copper	ppm	ASTM D5185m >300	0	<1	<1
Tin	ppm	ASTM D5185m >10	0	<1	0
Antimony	ppm	ASTM D5185m	---	---	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 316	84	97	9
Barium	ppm	ASTM D5185m 0.0	0	0	0
Molybdenum	ppm	ASTM D5185m 1.2	84	59	63
Manganese	ppm	ASTM D5185m	0	<1	<1
Magnesium	ppm	ASTM D5185m 24	131	394	1060
Calcium	ppm	ASTM D5185m 2292	2442	2006	1199
Phosphorus	ppm	ASTM D5185m 1064	1147	1087	1068
Zinc	ppm	ASTM D5185m 1160	1345	1250	1239
Sulfur	ppm	ASTM D5185m 4996	4590	3229	2725

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	18	15	16
Sodium	ppm	ASTM D5185m	2	2	2
Potassium	ppm	ASTM D5185m >20	<1	1	0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	1	0
Nitration	Abs/cm	*ASTM D7624 >20	7.9	8.7	5.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	18.5	22.3	18.3

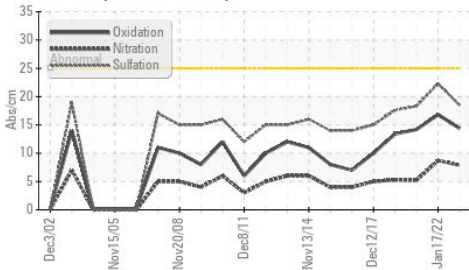
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	14.4	16.8	14.2
Base Number (BN)	mg KOH/g	ASTM D2896 10.1	7.1	10.0	---

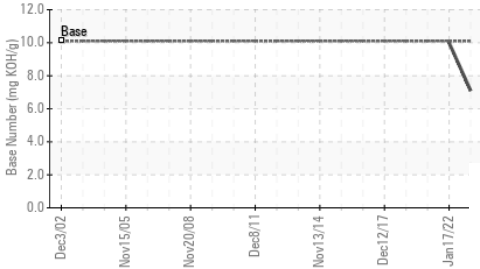


OIL ANALYSIS REPORT

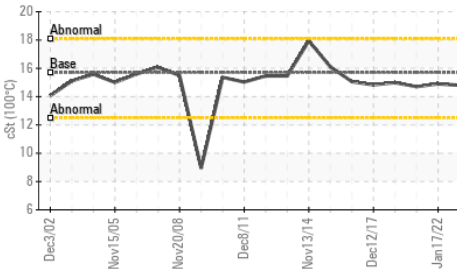
FT-IR (Direct Trend)



Base Number



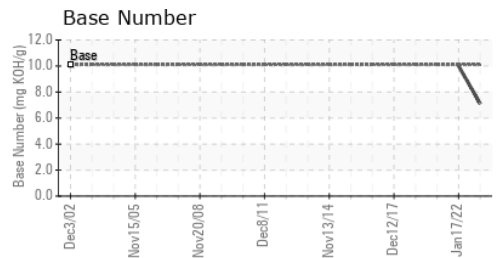
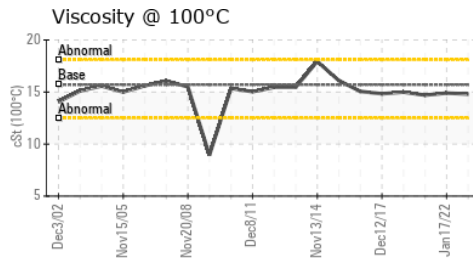
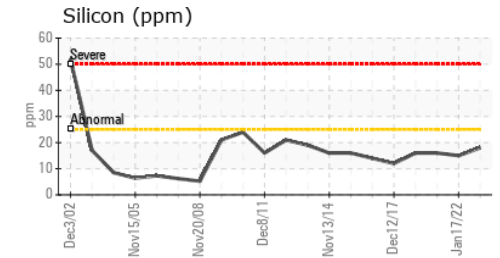
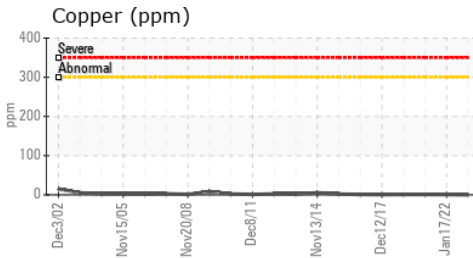
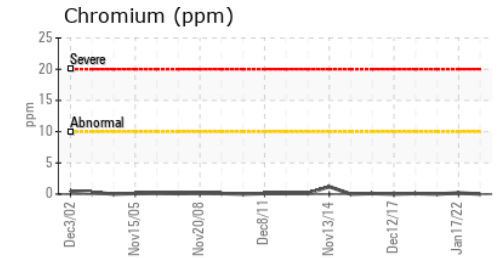
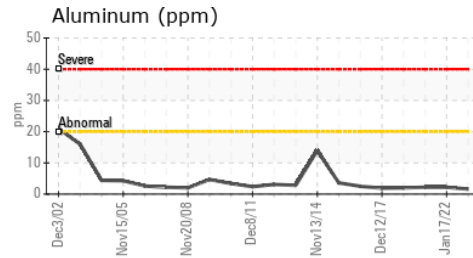
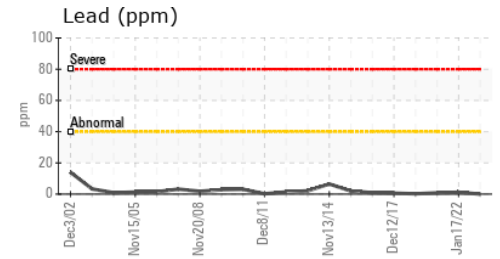
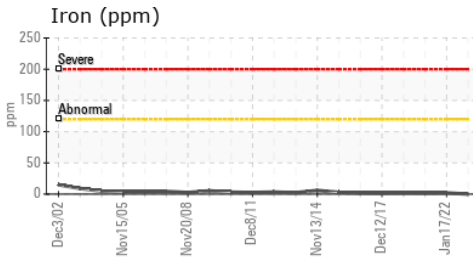
Viscosity @ 100°C



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
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	15.7	14.8	14.9

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0848580

Lab Number : 06146952

Unique Number : 10977030

Test Package : MOB 1 (Additional Tests: TBN)

Received : 12 Apr 2024

Tested : 15 Apr 2024

Diagnosed : 15 Apr 2024 - Sean Felton

PIEDMONT GENERATOR

7560 NC HWY 22 NORTH

CLIMAX, NC

US 27233

Contact: TERRY SHEPPARD

terry1pg@bellsouth.net; bill3pg@bellsouth.net

T: (336)685-4859

F: (336)685-5297

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)