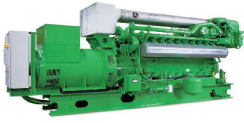




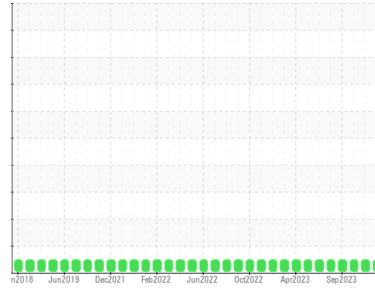
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
Durham unit 2 (S/N 6181211)
 Component
Natural Gas Engine
 Fluid
D-A Lubricant Blue Flame HB-8 40W (--- 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 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		WCM2249788	WCM2249775	WCM2249776
Sample Date	Client Info		09 Jan 2024	23 Oct 2023	03 Oct 2023
Machine Age	hrs	Client Info	16362	14514	14055
Oil Age	hrs	Client Info	1183	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>60	10	10	9
Chromium	ppm	ASTM D5185m	>5	<1	1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	7	8	6
Lead	ppm	ASTM D5185m	>25	0	0	<1
Copper	ppm	ASTM D5185m	>100	2	1	2
Tin	ppm	ASTM D5185m	>12	3	3	3
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		1	<1	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		6	6	6
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		48	53	60
Calcium	ppm	ASTM D5185m		2460	2372	2416
Phosphorus	ppm	ASTM D5185m		410	350	387
Zinc	ppm	ASTM D5185m		445	504	465
Sulfur	ppm	ASTM D5185m		3978	3592	3725

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	205	200	183
Sodium	ppm	ASTM D5185m	>20	0	2	2
Potassium	ppm	ASTM D5185m	>20	3	1	1

INFRA-RED

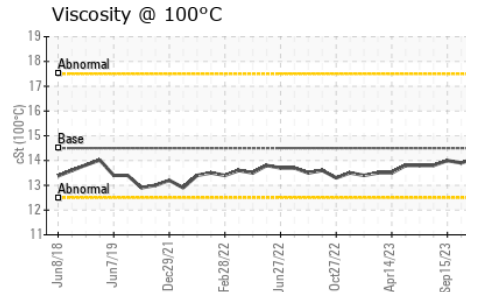
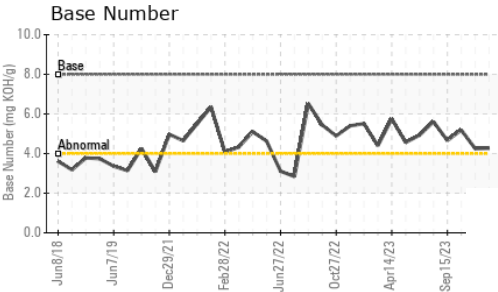
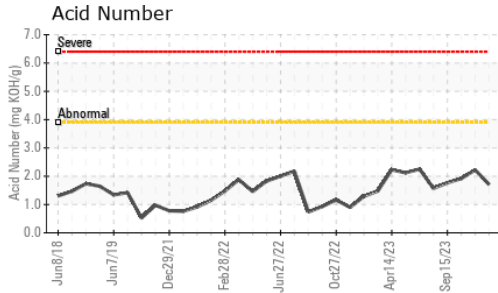
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>2	0	0	0
Nitration	Abs/cm	*ASTM D7624	>20	7.7	7.9	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.6	24.6	23.3

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	15.7	14.8
Acid Number (AN)	mg KOH/g	ASTM D8045		1.71	2.22	1.92
Base Number (BN)	mg KOH/g	ASTM D2896	8	4.27	4.25	5.19



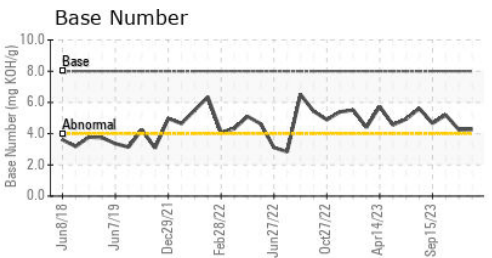
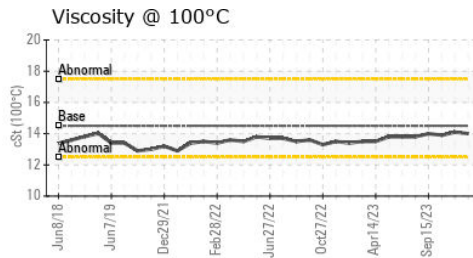
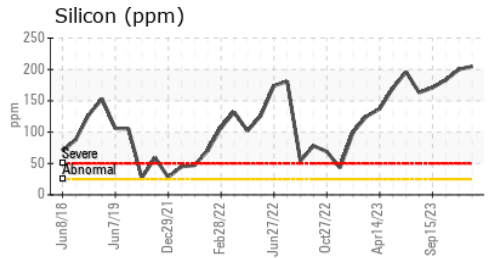
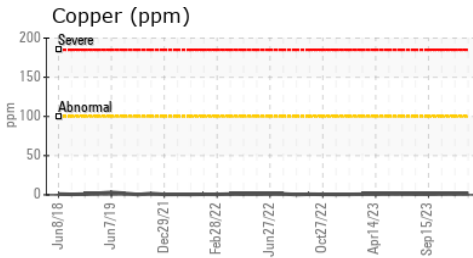
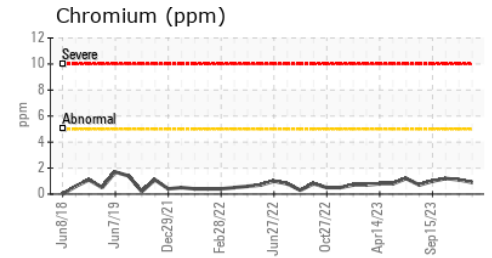
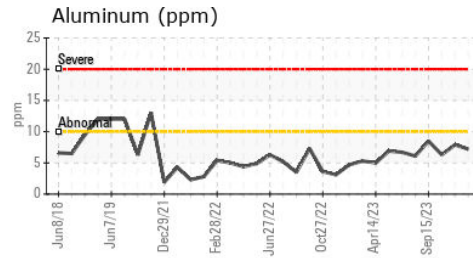
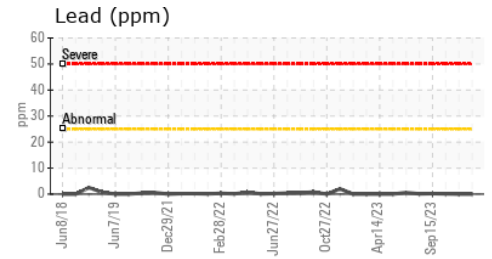
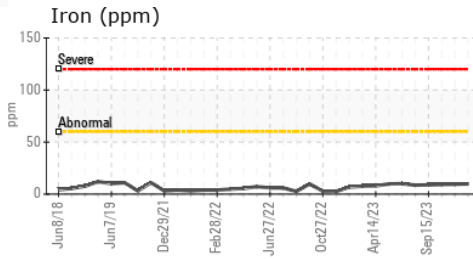
OIL ANALYSIS REPORT



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	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	>.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.5	14.0	14.1

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WCM2249788 Recieved : 10 Jan 2024
 Lab Number : 06057437 Diagnosed : 14 Jan 2024
 Unique Number : 10823386 Diagnostician : Don Baldrige
 Test Package : MOB 2

METHANE POWER DURHAM - MAS ENERGY
 2115 EAST CLUB BLVD
 DURHAM, NC
 US 27704
 Contact: KAYLA LEHMANN
 KLEHMANN@MAS-ENERGY.COM
 T: (504)228-6289
 F:

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)