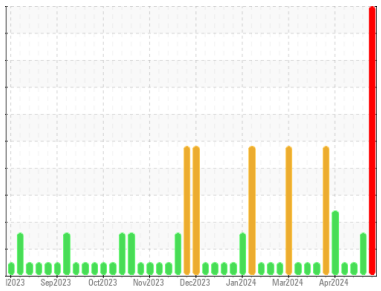
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
HBKM02BE
Component
Biogas Engine
Fluid
SHELL MYSELLA S5 S (48 GAL)

DIAGNOSIS

▲ **Recommendation**
(Customer Sample Comment:
Top Up Amount: 30 GAL)

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0775170**	WC0775172	WC0775164
Sample Date		Client Info		**16 May 2024**	10 May 2024	29 Apr 2024
Machine Age	hrs	Client Info		**106717**	106573	106324
Oil Age	hrs	Client Info		**644**	500	251
Oil Changed		Client Info		**Oil Added**	Oil Added	Oil Added
Sample Status				**SEVERE**	ABNORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>4.0	**<1.0**	<1.0	<1.0
Water		WC Method		**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>14	**6**	4	2
Chromium	ppm	ASTM D5185m	>3	**<1**	0	0
Nickel	ppm	ASTM D5185m		**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m		**<1**	0	0
Aluminum	ppm	ASTM D5185m	>5	**4**	3	2
Lead	ppm	ASTM D5185m	>8	**<1**	0	0
Copper	ppm	ASTM D5185m	>5	**2**	1	4
Tin	ppm	ASTM D5185m	>3	▲ **5**	2	2
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**4**	0	5
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**6**	5	5
Manganese	ppm	ASTM D5185m		**<1**	0	1
Magnesium	ppm	ASTM D5185m		**21**	20	19
Calcium	ppm	ASTM D5185m		**1673**	1821	1592
Phosphorus	ppm	ASTM D5185m	300	**396**	371	350
Zinc	ppm	ASTM D5185m		**465**	462	414
Sulfur	ppm	ASTM D5185m		**3606**	3741	3341

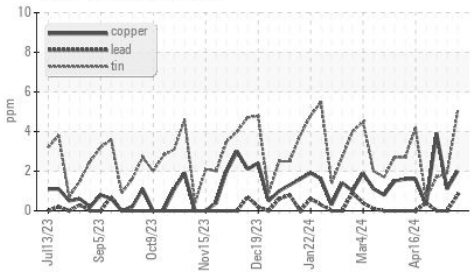
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>180	▲ **204**	▲ 193	95
Sodium	ppm	ASTM D5185m	>20	**0**	2	1
Potassium	ppm	ASTM D5185m	>20	**3**	0	0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		**0**	0	0.1
Nitration	Abs/cm	*ASTM D7624		**5.5**	4.9	4.4
Sulfation	Abs/.1mm	*ASTM D7415		**22.7**	22.2	19.1

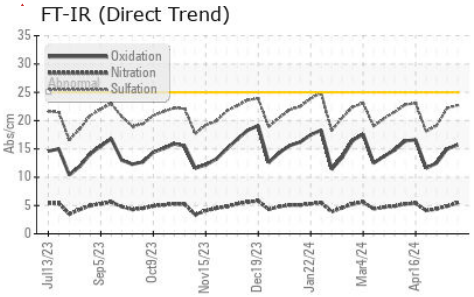
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414		**15.7**	15.0	12.5
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.59**	1.24	0.62
Base Number (BN)	mg KOH/g	ASTM D2896	5.3	**2.63**	3.12	3.83

OIL ANALYSIS REPORT

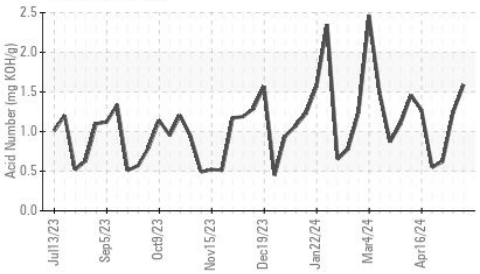
Non-ferrous Metals



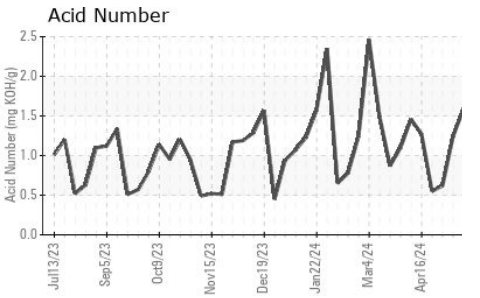
FT-IR (Direct Trend)



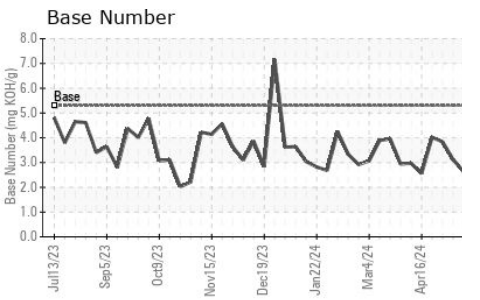
Acid Number



Acid Number



Base Number

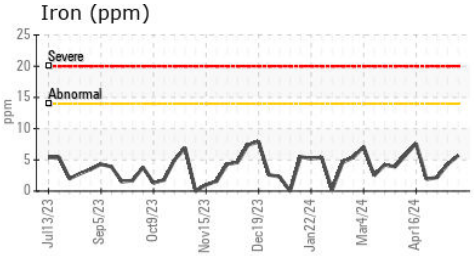


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual		**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

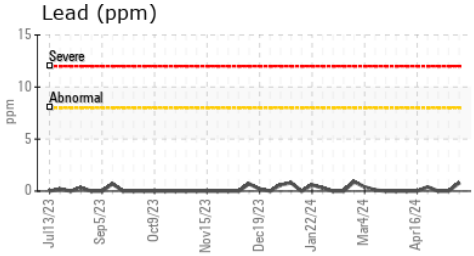
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.5	**13.2**	13.5	13.1

GRAPHS

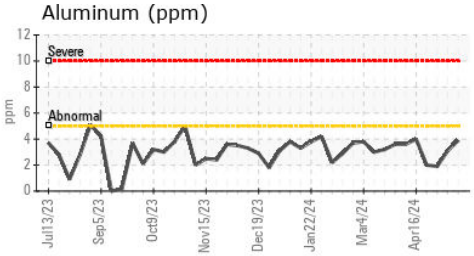
Iron (ppm)



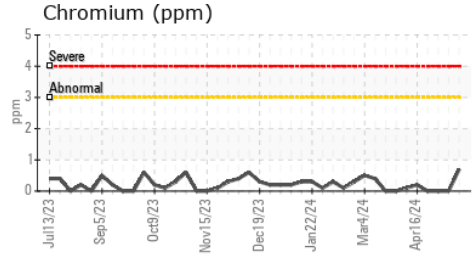
Lead (ppm)



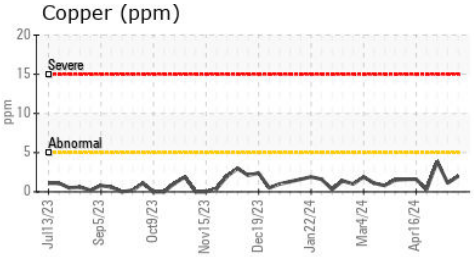
Aluminum (ppm)



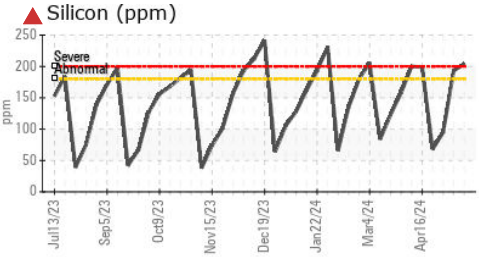
Chromium (ppm)



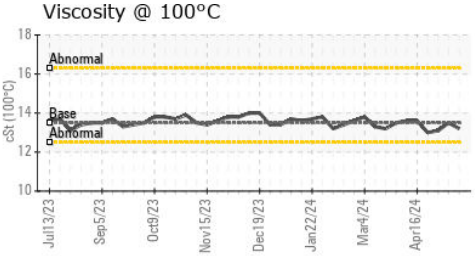
Copper (ppm)



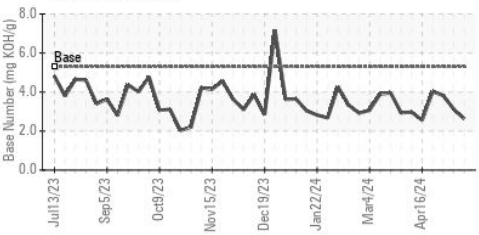
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0775170
Lab Number : 06184532
Unique Number : 11035858
Test Package : MOB 2

Received : 20 May 2024
Tested : 21 May 2024
Diagnosed : 22 May 2024 - Sean Felton

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)

EDL NA Recips-Honeybrook
Honey Brook Powerstation, 481 S. Churchtown Road
Narvon, PA
US 17555-9574
Contact: Christian Adames
Christian.Adames@edlenergy.com
T:
F:

Report Id: EDLNAR [WUSCAR] 06184532 (Generated: 05/22/2024 17:03:57) Rev: 1

Submitted By: Samantha Gauger