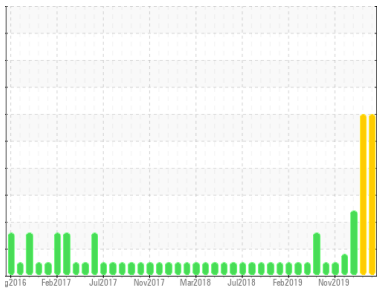
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
SECURITY HOUSTON TEXAS
Machine Id
JENBACHER SC-U2
Component
Biogas Engine
Fluid
MOBIL PEGASUS 805 (250 GAL)

DIAGNOSIS

Recommendation
We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear
An increase in the iron level is noted. Cylinder, crank, or cam shaft wear is indicated.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0427968**	WC0427970	WCM2313154
Sample Date		Client Info		**13 Jul 2023**	05 Jul 2023	30 Apr 2020
Machine Age	hrs	Client Info		**61215**	61035	59973
Oil Age	hrs	Client Info		**1231**	855	735
Oil Changed		Client Info		**Not Changd**	Not Changd	N/A
Sample Status				**SEVERE**	SEVERE	ABNORMAL

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

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**102**	129	▲ 25
Chromium	ppm	ASTM D5185m	>5	**2**	2	2
Nickel	ppm	ASTM D5185m	>2	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>5	**0**	0	0
Aluminum	ppm	ASTM D5185m	>15	**4**	4	4
Lead	ppm	ASTM D5185m	>20	**<1**	<1	0
Copper	ppm	ASTM D5185m	>15	**1**	1	<1
Tin	ppm	ASTM D5185m	>5	**1**	1	<1
Antimony	ppm	ASTM D5185m		**---**	---	16
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	80	**0**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	<1	0
Manganese	ppm	ASTM D5185m		**1**	1	<1
Magnesium	ppm	ASTM D5185m		**6**	11	2
Calcium	ppm	ASTM D5185m	1020	**1584**	1517	1598
Phosphorus	ppm	ASTM D5185m	220	**321**	325	303
Zinc	ppm	ASTM D5185m	230	**370**	370	344
Sulfur	ppm	ASTM D5185m	1000	**3634**	3721	2394

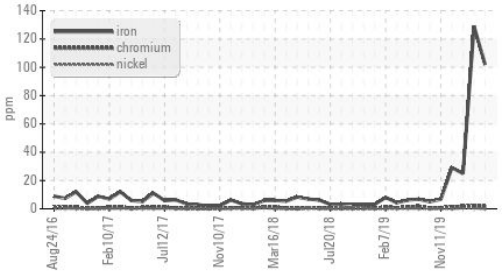
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>150	**107**	101	▲ 161
Sodium	ppm	ASTM D5185m	>20	**<1**	2	1
Potassium	ppm	ASTM D5185m	>20	**<1**	2	2

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>2	**0.1**	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	**5.6**	5.5	6.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	**20.7**	20.6	20.3

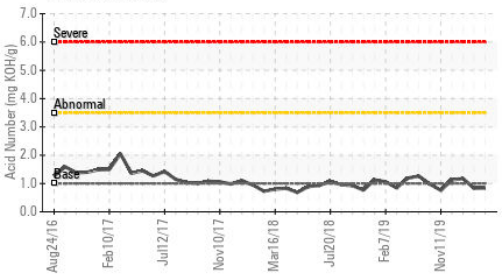
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**13.5**	13.2	14.5
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.84**	0.83	1.176
Base Number (BN)	mg KOH/g	ASTM D2896	6.2	**1.91**	5.39	3.52

OIL ANALYSIS REPORT

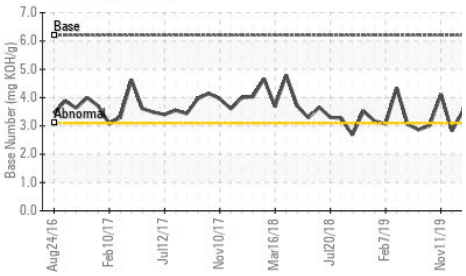
Ferrous Alloys



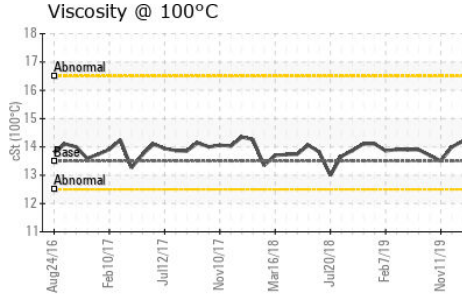
Acid Number



Base Number



Viscosity @ 100°C

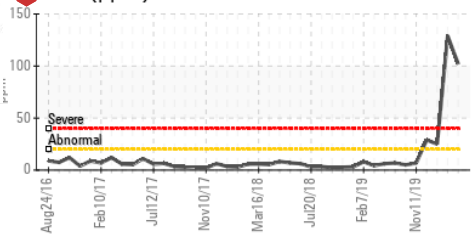


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

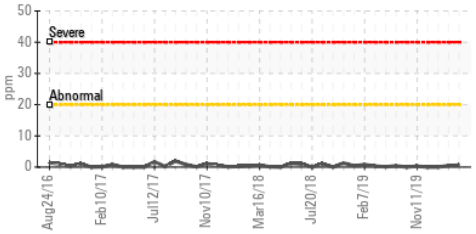
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	13.5	**13.5**	13.6	14.2

GRAPHS

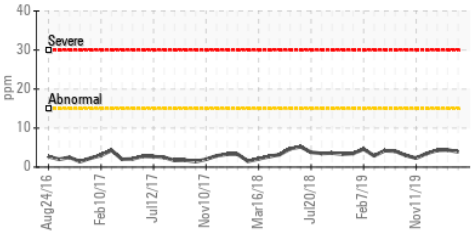
Iron (ppm)



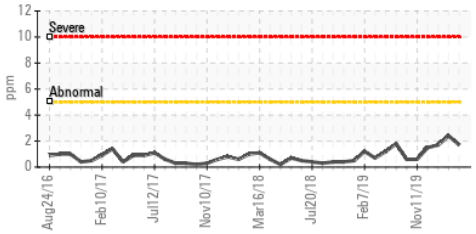
Lead (ppm)



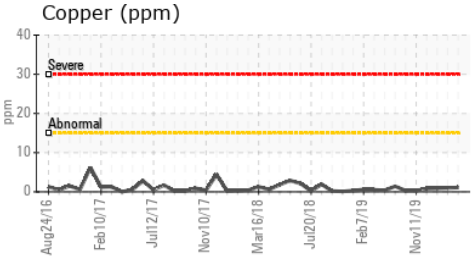
Aluminum (ppm)



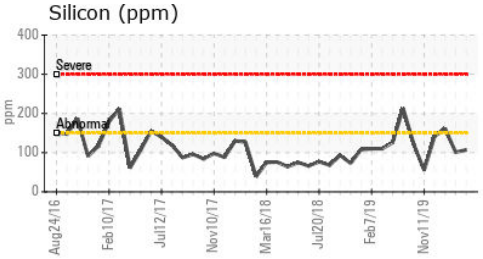
Chromium (ppm)



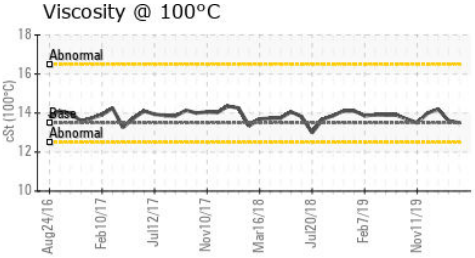
Copper (ppm)



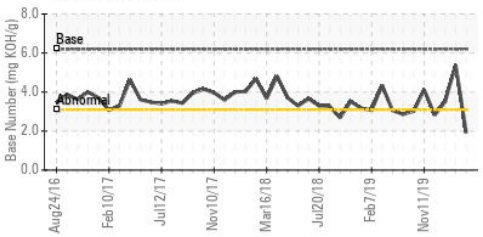
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0427968
Lab Number : 05900153
Unique Number : 10561509
Test Package : MOB 2

Received : 17 Jul 2023
Diagnosed : 20 Jul 2023
Diagnostician : Angela Borella

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)

MONTAUK ENERGY CAPITAL LLC (TEXAS) LP
1412 N SAM HOUSTON PKWY E, SUITE 100
HOUSTON, TX
US 77032
Contact: DAMON MCCLENAN
dmcclenan@montaukenergy.com
T: (713)781-1126
F: (713)781-1127