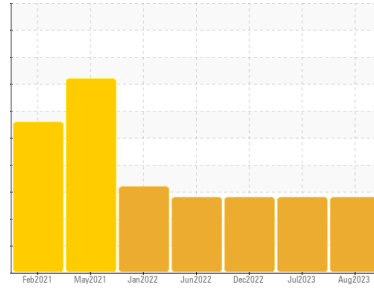


# PROBLEM SUMMARY

Sample Rating Trend



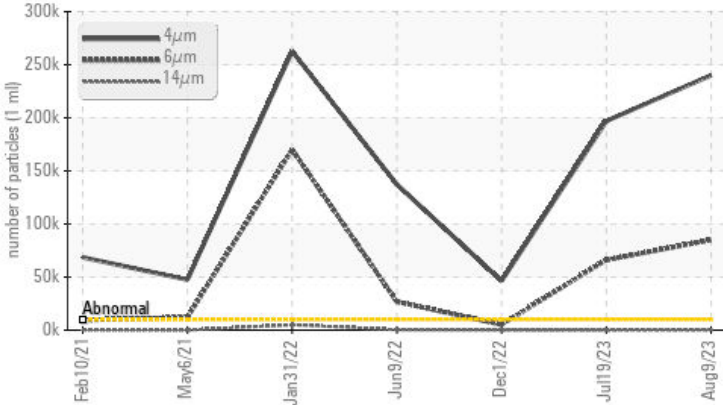
Machine Id  
**VILTER C**

Component  
**Compressor**

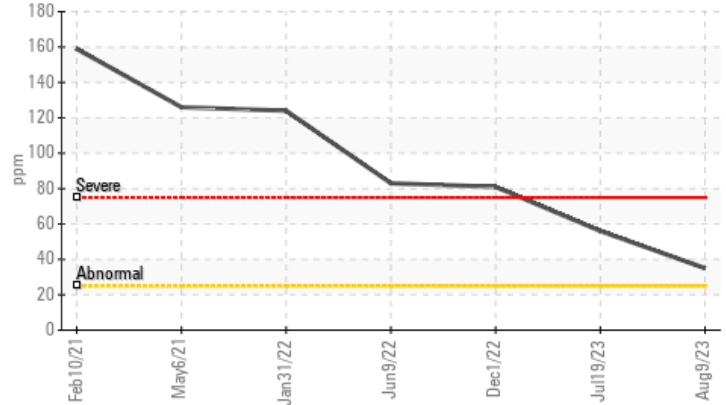
Fluid  
**VILTER METHANE PAO-100 (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



▲ Silicon (ppm)



## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

Sample Status			<b>ABNORMAL</b>	ABNORMAL	ABNORMAL
Silicon	ppm	ASTM D5185m >25	▲ <b>35</b>	▲ 56	▲ 81
Particles >4µm		ASTM D7647 >10000	▲ <b>240061</b>	▲ 196951	▲ 46325
Particles >6µm		ASTM D7647 >1300	▲ <b>85004</b>	▲ 66068	▲ 5190
Oil Cleanliness		ISO 4406 (c) >20/17/15	▲ <b>25/24/14</b>	▲ 25/23/12	▲ 23/20/14

Customer Id: MELMELTX  
Sample No.: TO60001319  
Lab Number: 05924356  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 19 Jul 2023 Diag: Don Baldrige

DIRT



No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 01 Dec 2022 Diag: Angela Borella

DIRT



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 09 Jun 2022 Diag: Jonathan Hester

DIRT



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

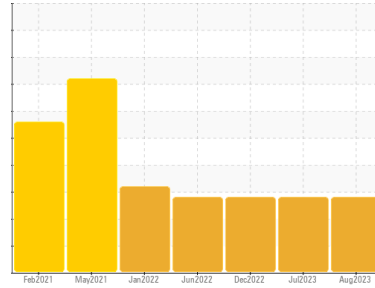
view report



Machine Id  
**VILTER C**

Component  
**Compressor**

Fluid  
**VILTER METHANE PAO-100 (--- GAL)**



**DIAGNOSIS**

**Recommendation**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material.

**Fluid Condition**

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	<b>TO60001319</b>	TO60000429	TO50000124
Sample Date	Client Info	<b>09 Aug 2023</b>	19 Jul 2023	01 Dec 2022
Machine Age	wks	Client Info	0	0
Oil Age	wks	Client Info	0	0
Oil Changed	Client Info	<b>Filtered</b>	Filtered	Filtered
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

**WEAR METALS**

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<1	<1	1
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	<1	0
Aluminum	ppm	ASTM D5185m >25	<1	0	<1
Lead	ppm	ASTM D5185m >25	0	0	0
Copper	ppm	ASTM D5185m >50	0	0	0
Tin	ppm	ASTM D5185m >15	0	<1	<1
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	0	0
Barium	ppm	ASTM D5185m	0	<1	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m	5	0	1
Calcium	ppm	ASTM D5185m	0	0	0
Phosphorus	ppm	ASTM D5185m	3	0	33
Zinc	ppm	ASTM D5185m	0	0	4
Sulfur	ppm	ASTM D5185m	<b>4366</b>	6225	6017

**CONTAMINANTS**

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	▲ <b>35</b>	▲ 56	▲ 81
Sodium	ppm	ASTM D5185m	0	0	0
Potassium	ppm	ASTM D5185m >20	0	<1	0
Water	%	ASTM D6304 >0.1	<b>0.011</b>	0.024	0.007
ppm Water	ppm	ASTM D6304 >1000	<b>117.6</b>	249.7	74.9

**FLUID CLEANLINESS**

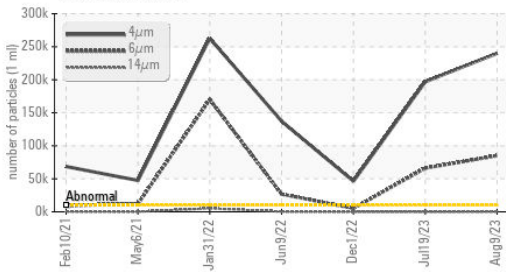
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	▲ <b>240061</b>	▲ 196951	▲ 46325
Particles >6µm	ASTM D7647 >1300	▲ <b>85004</b>	▲ 66068	▲ 5190
Particles >14µm	ASTM D7647 >320	<b>107</b>	35	100
Particles >21µm	ASTM D7647 >80	<b>12</b>	3	21
Particles >38µm	ASTM D7647 >20	<b>0</b>	0	1
Particles >71µm	ASTM D7647 >4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >20/17/15	▲ <b>25/24/14</b>	▲ 25/23/12	▲ 23/20/14

**FLUID DEGRADATION**

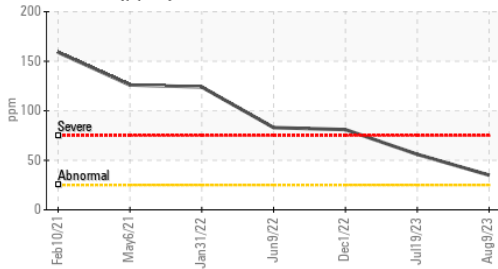
method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.44</b>	0.192	0.87

# OIL ANALYSIS REPORT

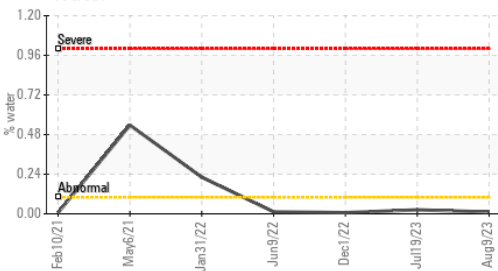
## ▲ Particle Trend



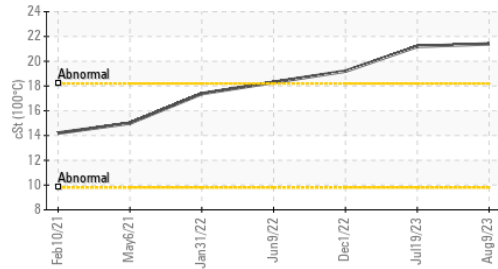
## ▲ Silicon (ppm)



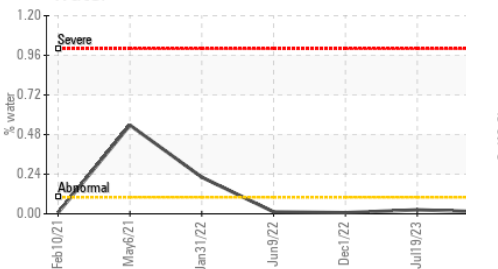
## Water



## Viscosity @ 100°C



## Water

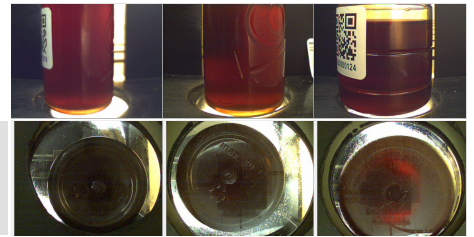


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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 @ 40°C	cSt	ASTM D445	144	141	125
Visc @ 100°C	cSt	ASTM D445	21.4	21.2	19.2
Viscosity Index (VI)	Scale	ASTM D2270	174	175	174

SAMPLE IMAGES	method	limit/base	current	history1	history2
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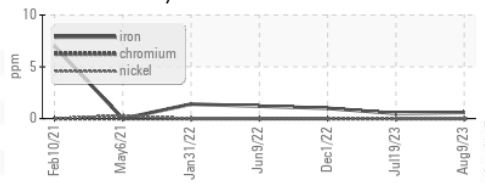
Color



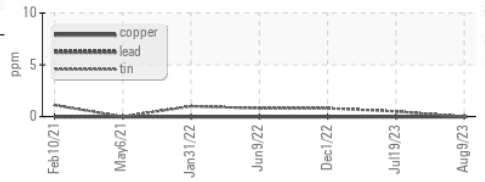
Bottom

## GRAPHS

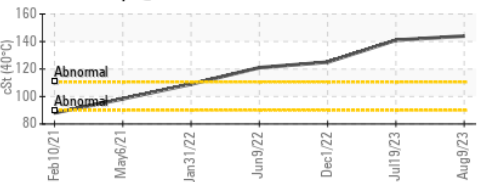
### Ferrous Alloys



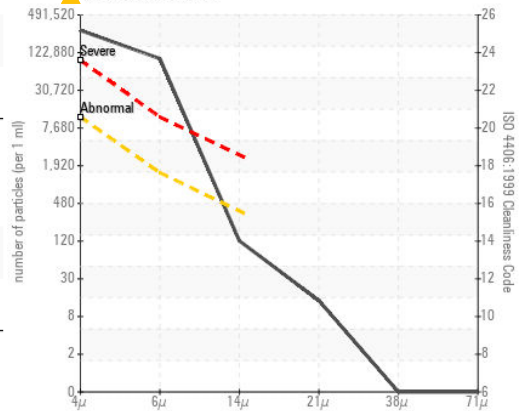
### Non-ferrous Metals



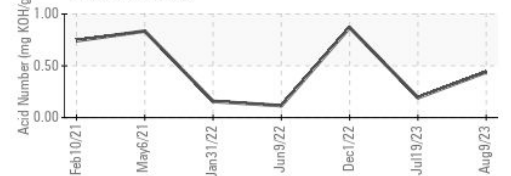
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO60001319 **Received** : 14 Aug 2023  
**Lab Number** : 05924356 **Diagnosed** : 16 Aug 2023  
**Unique Number** : 10604303 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

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)

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 US 75454  
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 bpalmer@morrowenergy.com  
 T: (972)529-8442  
 F: