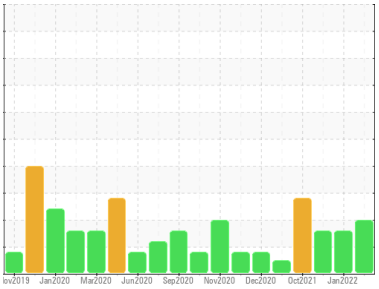
PROBLEM SUMMARY

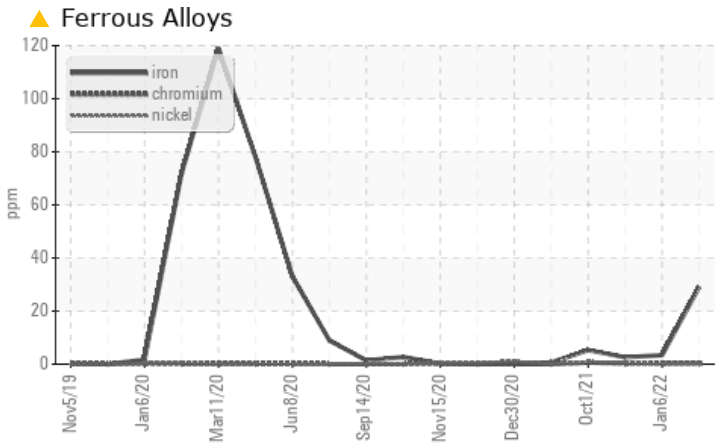
Sample Rating Trend



VISUAL METAL

Machine Id
VILTER VILTER
Component
Screw Compressor
Fluid
TULCO LUBSOIL LPG WI 100 (150 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>60	▲ **29**	3	3
White Metal	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE

Customer Id: CAMFORAR
Sample No.: TO40000024
Lab Number: 05470246
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	MISSED	Apr 20 2022	?	We advise that you inspect for the source(s) of wear.
Change Filter	MISSED	Apr 20 2022	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to metal particles present in this sample.

HISTORICAL DIAGNOSIS

06 Jan 2022 Diag: Don Baldridge

ISO

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

09 Nov 2021 Diag: Doug Bogart

ISO

We recommend you service the filters on this component. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

01 Oct 2021 Diag: Doug Bogart

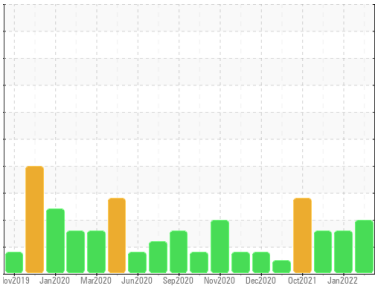
DIRT

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.All component wear rates are normal. There is a moderate amount of visible silt present in the sample. Light concentration of visible dirt/debris present in the oil. Elemental level of silicon (Si) above normal. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL

Machine Id
VILTER VILTER
Component
Screw Compressor
Fluid
TULCO LUBSOIL LPG WI 100 (150 GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We advise that you inspect for the source(s) of wear. Resample at the next service interval to monitor. We were unable to perform a particle count due to metal particles present in this sample.

Wear
An increase in the iron level is noted. Moderate concentration of visible metal present.

Contamination
No other contaminants were detected in the oil.

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		**TO40000024**	TO40000022	TO40000019
Sample Date		Client Info		**07 Feb 2022**	06 Jan 2022	09 Nov 2021
Machine Age	wks	Client Info		**0**	0	0
Oil Age	wks	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>60	▲ **29**	3	3
Chromium	ppm	ASTM D5185m	>4	**<1**	<1	<1
Nickel	ppm	ASTM D5185m		**<1**	<1	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>5	**<1**	0	0
Lead	ppm	ASTM D5185m	>10	**<1**	<1	<1
Copper	ppm	ASTM D5185m	>30	**<1**	<1	0
Tin	ppm	ASTM D5185m	>15	**<1**	2	1
Antimony	ppm	ASTM D5185m		**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	**4**	4	4
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m	0	**0**	<1	0
Calcium	ppm	ASTM D5185m		**0**	<1	0
Phosphorus	ppm	ASTM D5185m	0	**6**	7	6
Zinc	ppm	ASTM D5185m	0	**0**	1	0
Sulfur	ppm	ASTM D5185m	0	**1047**	1454	1246

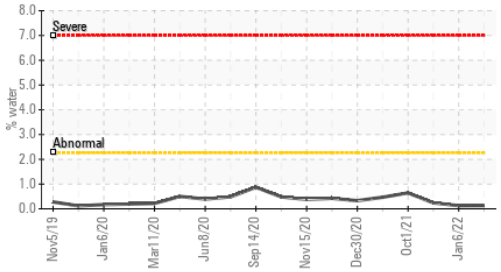
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**26**	41	30
Sodium	ppm	ASTM D5185m		**2**	0	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	<1
Water	%	ASTM D6304	>2.26	**0.132**	0.127	0.240
ppm Water	ppm	ASTM D6304	>22600	**1329.5**	1272.1	2408.9

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	---	▲ 48737	▲ 45755
Particles >6µm		ASTM D7647	>2500	---	▲ 9661	▲ 11270
Particles >14µm		ASTM D7647	>320	---	▲ 518	▲ 726
Particles >21µm		ASTM D7647	>80	---	▲ 124	▲ 156
Particles >38µm		ASTM D7647	>20	---	3	13
Particles >71µm		ASTM D7647	>4	---	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	---	▲ 23/20/16	▲ 23/21/17

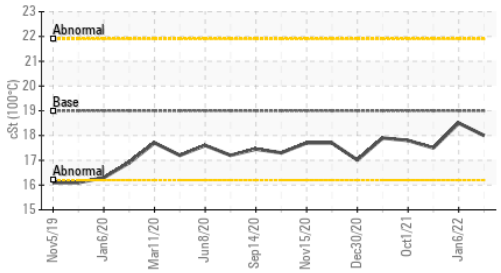
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**1.126**	0.85	1.108

OIL ANALYSIS REPORT

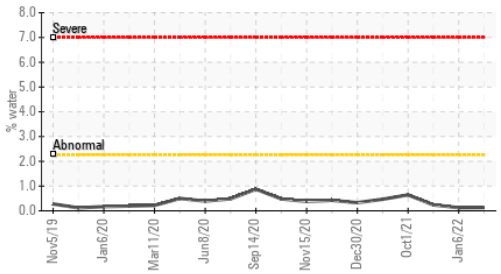
Water



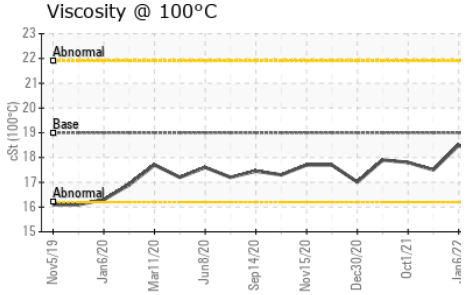
Viscosity @ 100°C



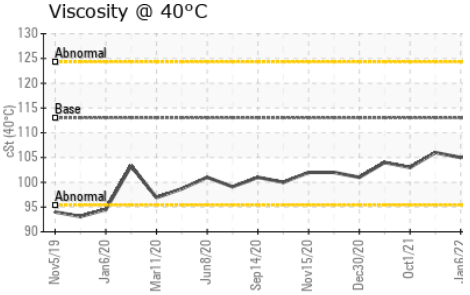
Water



Viscosity @ 100°C



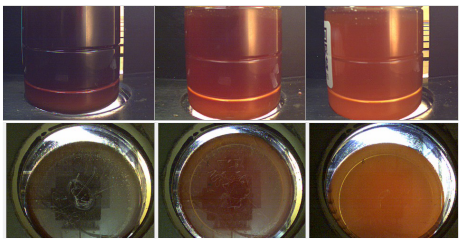
Viscosity @ 40°C



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ **MODER**	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**	LIGHT	LIGHT
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	>2.26	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

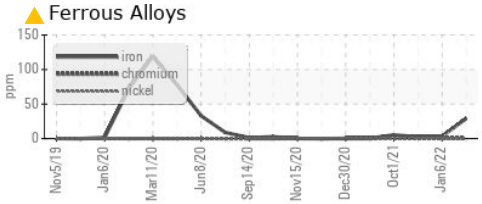
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	113	**106**	105	106
Visc @ 100°C	cSt	ASTM D445	19	**18.0**	18.5	17.5
Viscosity Index (VI)	Scale	ASTM D2270	189	**188**	196	181

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

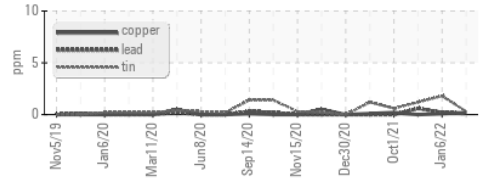


GRAPHS

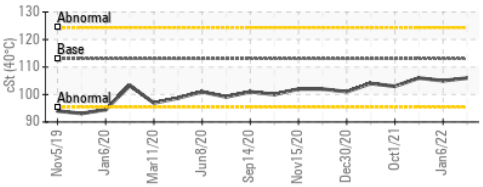
▲ Ferrous Alloys



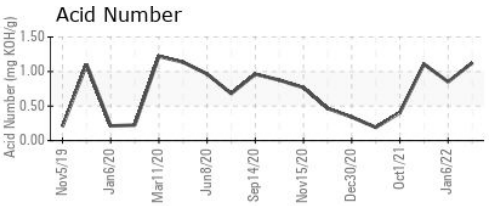
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO40000024 **Received** : 16 Feb 2022
Lab Number : 05470246 **Diagnosed** : 17 Feb 2022
Unique Number : 9854459 **Diagnostician** : Doug Bogart
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)

CAMBRIAN ENERGY-SOUTH TEX FT. SMITH TREATERS
5950 COMMERCE RD
FORT SMITH, AR
US 72916
Contact: DUSTIN FRY
dustin@morrowenergy.com
T: (479)221-7571
F: