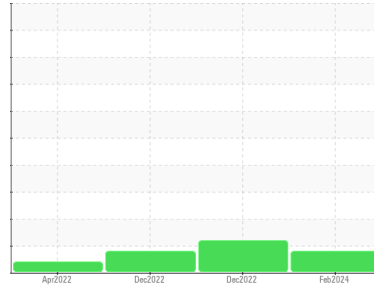


Area
COMPRESSOR STATIONS/ZENA AREA
 Machine Id
ATHENA (S/N 5629X3111)
 Component
Compressor
 Fluid
TULCO LUBSOIL LPG WS 150 (--- GAL)



DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of visible silt present in the sample.

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	TO60002047	TO60000159	TO60000037
Sample Date	Client Info	07 Feb 2024	12 Dec 2022	12 Dec 2022
Machine Age	hrs	25662	10578	16312
Oil Age	hrs	16312	10578	0
Oil Changed	Client Info	Not Chngd	N/A	N/A
Sample Status		ABNORMAL	ABNORMAL	ATTENTION

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	1	0	16
Chromium	ppm	ASTM D5185m >10	<1	0	<1
Nickel	ppm	ASTM D5185m	0	<1	<1
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	<1
Aluminum	ppm	ASTM D5185m >25	2	<1	<1
Lead	ppm	ASTM D5185m >25	0	<1	1
Copper	ppm	ASTM D5185m >50	0	0	<1
Tin	ppm	ASTM D5185m >15	0	2	2
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 0	0	0	0
Barium	ppm	ASTM D5185m 0	8	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	<1
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 0	<1	<1	1
Calcium	ppm	ASTM D5185m 0	<1	0	2
Phosphorus	ppm	ASTM D5185m 0	32	6	293
Zinc	ppm	ASTM D5185m 0	0	0	2
Sulfur	ppm	ASTM D5185m 0	3409	153	508

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	0	<1	4
Sodium	ppm	ASTM D5185m	1	0	7
Potassium	ppm	ASTM D5185m >20	2	<1	1
Water	%	ASTM D6304 >2.26	0.873	0.359	0.382
ppm Water	ppm	ASTM D6304 >22600	8734	3590	3820

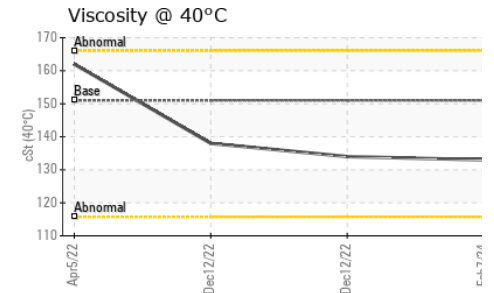
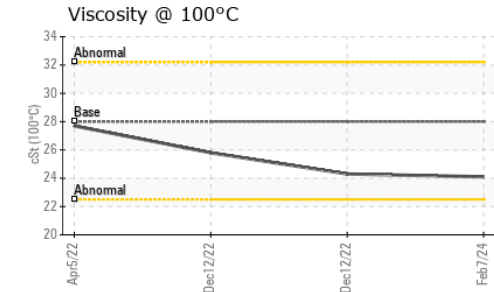
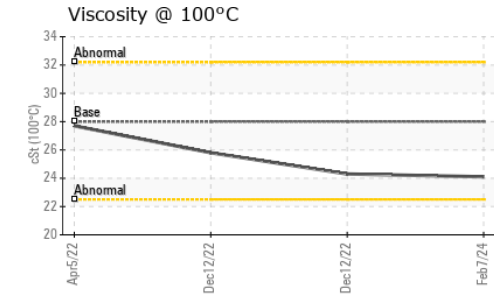
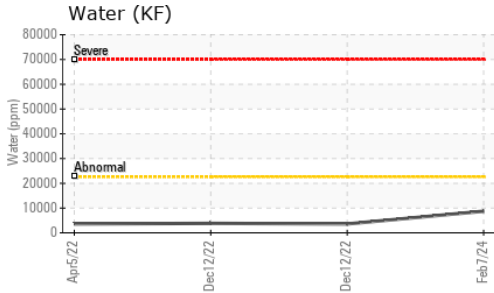
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	---	▲ 15644	7687
Particles >6µm	ASTM D7647 >1300	---	▲ 4711	● 1562
Particles >14µm	ASTM D7647 >320	---	277	72
Particles >21µm	ASTM D7647 >80	---	67	16
Particles >38µm	ASTM D7647 >20	---	0	0
Particles >71µm	ASTM D7647 >4	---	0	0
Oil Cleanliness	ISO 4406 (c) >20/17/15	---	▲ 21/19/15	● 20/18/13

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.17	0.078	0.49

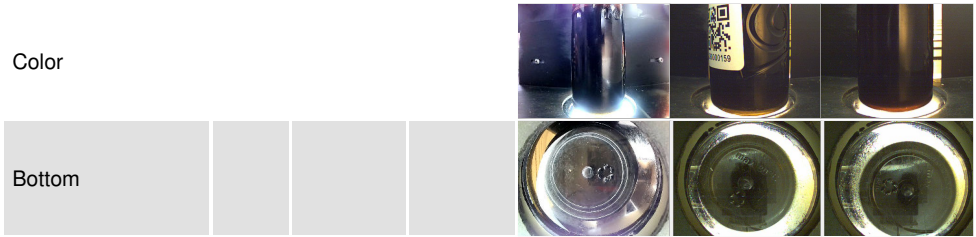
OIL ANALYSIS REPORT



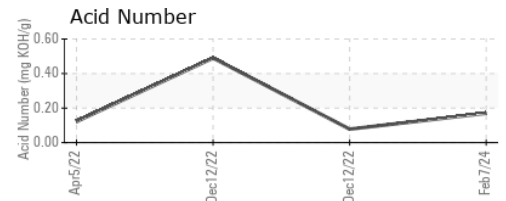
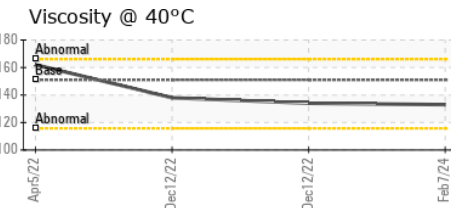
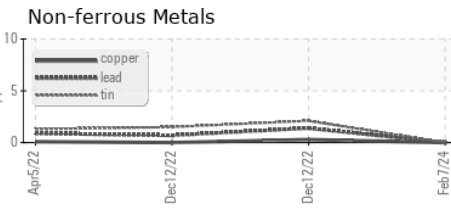
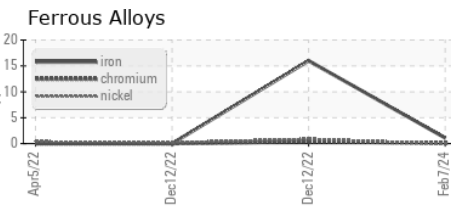
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	LIGHT	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	134	138
Visc @ 100°C	cSt	ASTM D445	28	24.3	25.8
Viscosity Index (VI)	Scale	ASTM D2270	224	214	223

SAMPLE IMAGES



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60002047 **Received** : 26 Feb 2024
Lab Number : 06100911 **Tested** : 28 Feb 2024
Unique Number : 10899141 **Diagnosed** : 28 Feb 2024 - 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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