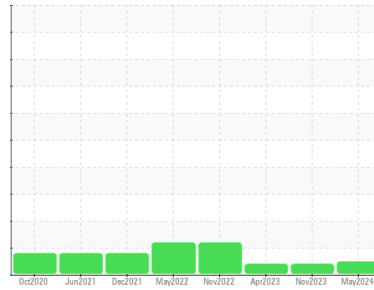


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Marcus Hook/Cryogenic/Compressor**  
 Machine Id  
**CRYOGENIC COMPRESSOR 40-C-102E**  
 Component  
**Rotary Compressor**  
 Fluid  
**FRICK COMPRESSOR OIL #12B (825 GAL)**

**DIAGNOSIS**

**Recommendation**  
 No corrective action is recommended at this time. Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 The amount and size of particulates present in the system are acceptable.

**Fluid Condition**  
 The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

**SAMPLE INFORMATION** method limit/base current history1 history2

Sample Number	Client Info	<b>TO90002161</b>	TO60001818	TO90003054
Sample Date	Client Info	<b>09 May 2024</b>	05 Nov 2023	25 Apr 2023
Machine Age	hrs Client Info	<b>0</b>	0	0
Oil Age	hrs Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	ABNORMAL	ABNORMAL

**WEAR METALS** method limit/base current history1 history2

Iron	ppm	ASTM D5185m	>70	<b>4</b>	2	6
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m		<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Tin	ppm	ASTM D5185m	>3	<b>1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

**ADDITIVES** method limit/base current history1 history2

Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Calcium	ppm	ASTM D5185m		<b>0</b>	7	8
Phosphorus	ppm	ASTM D5185m		<b>0</b>	17	10
Zinc	ppm	ASTM D5185m		<b>0</b>	0	4
Sulfur	ppm	ASTM D5185m		<b>0</b>	0	20

**CONTAMINANTS** method limit/base current history1 history2

Silicon	ppm	ASTM D5185m	>45	<b>4</b>	5	6
Sodium	ppm	ASTM D5185m		<b>2</b>	1	3
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Water	%	ASTM D6304	>0.6	<b>0.039</b>	0.036	0.019
ppm Water	ppm	ASTM D6304		<b>392</b>	365.4	192.0

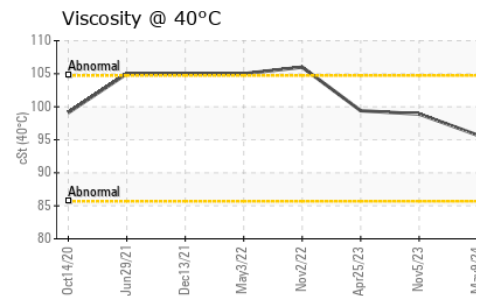
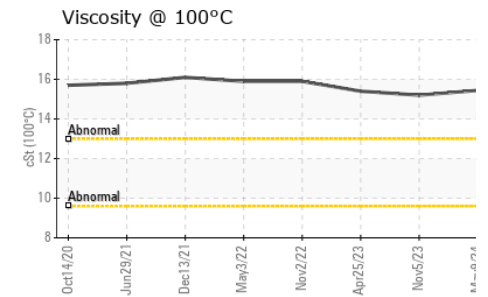
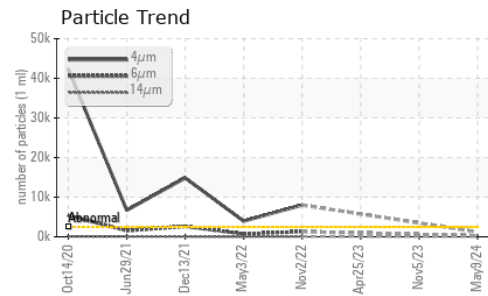
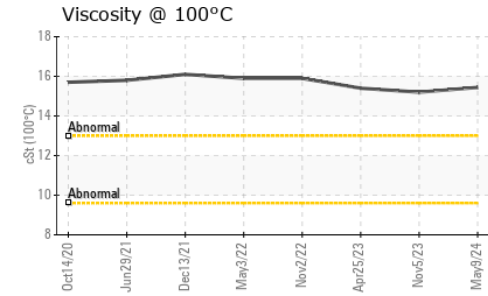
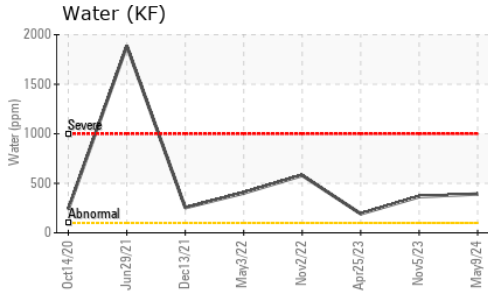
**FLUID CLEANLINESS** method limit/base current history1 history2

Particles >4µm	ASTM D7647	>2500	<b>1223</b>	---	---
Particles >6µm	ASTM D7647	>320	<b>255</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>10</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>1</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>0</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>18/15/13	<b>17/15/10</b>	---	---

**FLUID DEGRADATION** method limit/base current history1 history2

Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.059</b>	0.112	0.028
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# OIL ANALYSIS REPORT

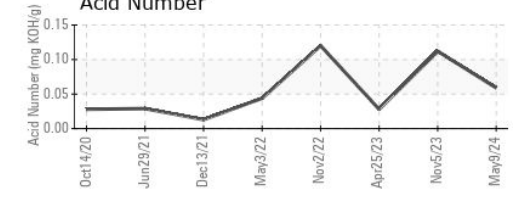
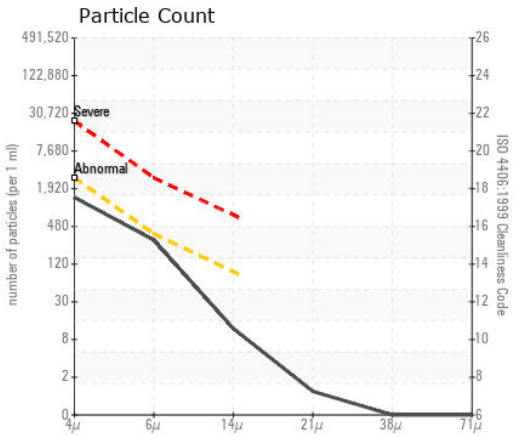
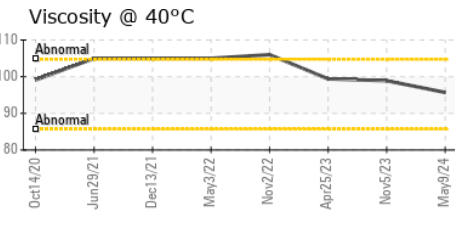
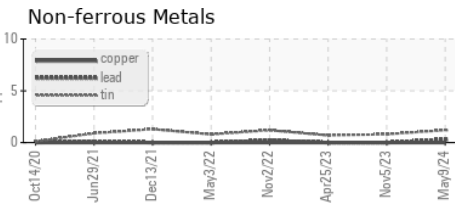
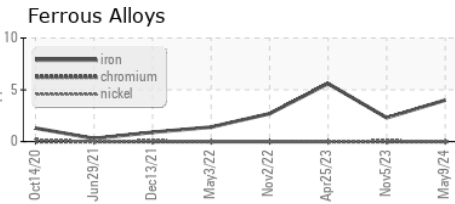


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	<b>LIGHT</b>	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.6	<b>NEG</b>	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	<b>95.7</b>	98.9	99.4
Visc @ 100°C	cSt	ASTM D445	<b>15.44</b>	15.2	15.4
Viscosity Index (VI)	Scale	ASTM D2270	<b>171</b>	162	164

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO90002161  
**Lab Number** : 06182909  
**Unique Number** : 11034235  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**Received** : 17 May 2024  
**Tested** : 28 May 2024  
**Diagnosed** : 28 May 2024 - Angela Borella

**ENERGY TRANSFER - MARCUS HOOK**  
 2ND & GREEN STREETS  
 MARCUS HOOK, PA  
 US 19061  
 Contact: CHRISTOPHER HOFFA  
 christopher.hoffa@energytransfer.com

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)