



OIL ANALYSIS REPORT

Sample Rating Trend

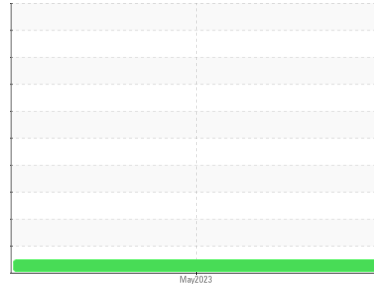
NORMAL



Machine Id
NEUMAN & ESSER C-6004C (S/N 909000796)

Component
Reciprocating Compressor

Fluid
TOTAL FINA CARTER SP ISO 150 (22 GAL)



DIAGNOSIS

Recommendation

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. There is no indication of any contamination 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	WC0817274	---	---
Sample Date	Client Info	11 May 2023	---	---
Machine Age	hrs Client Info	0	---	---
Oil Age	hrs Client Info	534	---	---
Oil Changed	Client Info	Changed	---	---
Sample Status		NORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185m	>50	<1	---	---
Chromium ppm ASTM D5185m	>10	0	---	---
Nickel ppm ASTM D5185m		0	---	---
Titanium ppm ASTM D5185m		<1	---	---
Silver ppm ASTM D5185m		0	---	---
Aluminum ppm ASTM D5185m	>25	3	---	---
Lead ppm ASTM D5185m	>25	5	---	---
Copper ppm ASTM D5185m	>50	0	---	---
Tin ppm ASTM D5185m	>15	<1	---	---
Vanadium ppm ASTM D5185m		0	---	---
Cadmium ppm ASTM D5185m		0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron ppm ASTM D5185m		16	---	---
Barium ppm ASTM D5185m		0	---	---
Molybdenum ppm ASTM D5185m		0	---	---
Manganese ppm ASTM D5185m		<1	---	---
Magnesium ppm ASTM D5185m		<1	---	---
Calcium ppm ASTM D5185m		22	---	---
Phosphorus ppm ASTM D5185m		451	---	---
Zinc ppm ASTM D5185m		0	---	---
Sulfur ppm ASTM D5185m		6691	---	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185m	>25	6	---	---
Sodium ppm ASTM D5185m		0	---	---
Potassium ppm ASTM D5185m	>20	<1	---	---

FLUID CLEANLINESS

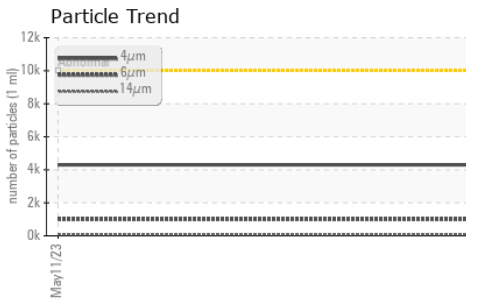
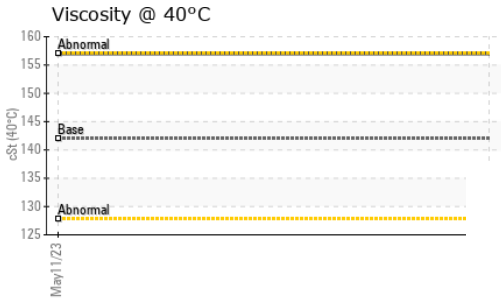
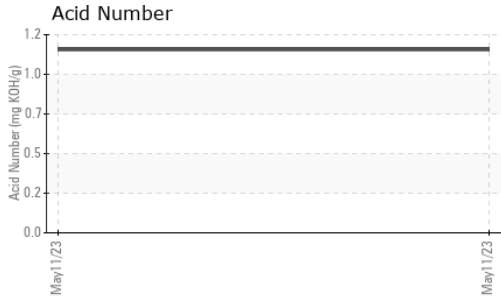
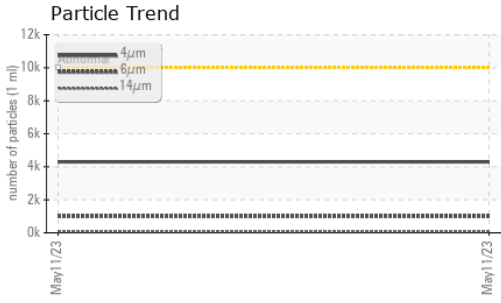
method	limit/base	current	history1	history2
Particles >4µm ASTM D7647	>10000	4295	---	---
Particles >6µm ASTM D7647	>2500	1001	---	---
Particles >14µm ASTM D7647	>320	82	---	---
Particles >21µm ASTM D7647	>80	21	---	---
Particles >38µm ASTM D7647	>20	1	---	---
Particles >71µm ASTM D7647	>4	1	---	---
Oil Cleanliness ISO 4406 (c)	>20/18/15	19/17/14	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g ASTM D8045		1.11	---	---



OIL ANALYSIS REPORT



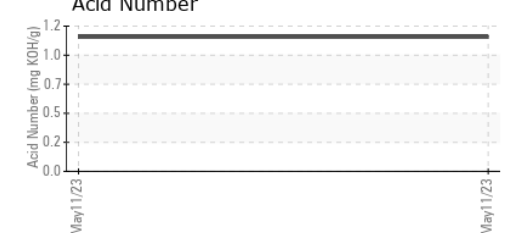
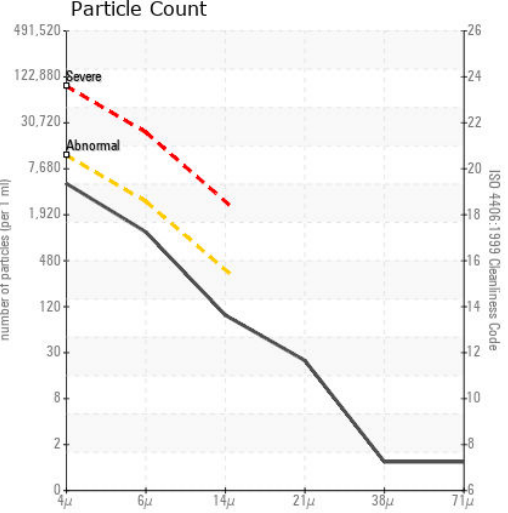
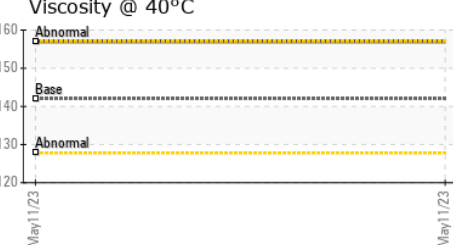
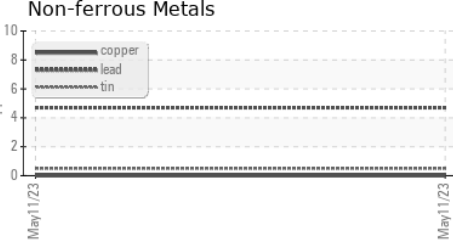
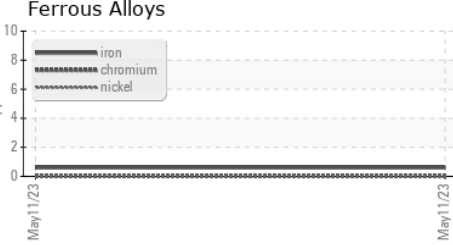
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Precipitate	scalar	*Visual	NONE	NONE	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---	---
Free Water	scalar	*Visual		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	142	157	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0817274 **Received** : 15 May 2023
Lab Number : 05847093 **Diagnosed** : 17 May 2023
Unique Number : 10471200 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)

PIEDMONT NATURAL GAS / DUKE ENERGY
 680 REV BILL RD
 MAXTON, NC
 US 28364
 Contact: ANDREW CAVENAUGH
 andrew.cavenaugh@duke-energy.com
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 F:

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)