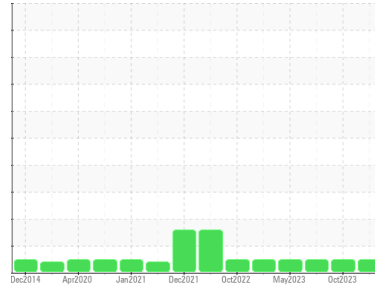


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**BT-F01-P10M (S/N P10M COOLING TOWER PUMP MOTOR)**  
Component  
**Upper Bearing**  
Fluid  
**SHELL TURBO T ISO 32 (--- GAL)**

**DIAGNOSIS**

**Recommendation**

No action required at this time. Resample at next normal interval.

**Wear**

Wear particles are low and acceptable.

**Contamination**

Contamination is on par for new unfiltered oil. Filtration can help with machine life.

**Fluid Condition**

Fluid health indicators are acceptable for continued use.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>PLS0000716</b>	PLS0000786	PLS0000477
Sample Date	Client Info			<b>31 Jan 2024</b>	26 Oct 2023	09 Aug 2023
Machine Age	mths	Client Info		<b>0</b>	0	0
Oil Age	mths	Client Info		<b>3</b>	1	0
Oil Changed	Client Info			<b>N/A</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>2	<b>NEG</b>	NEG	NEG

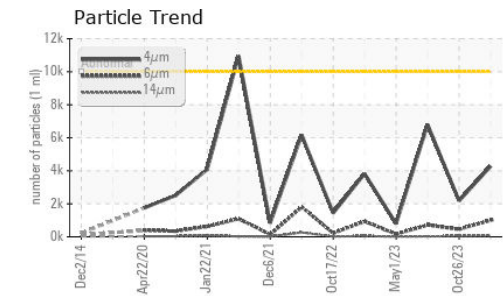
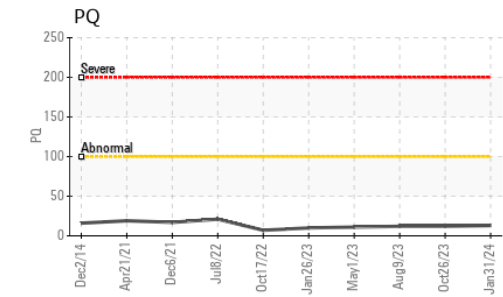
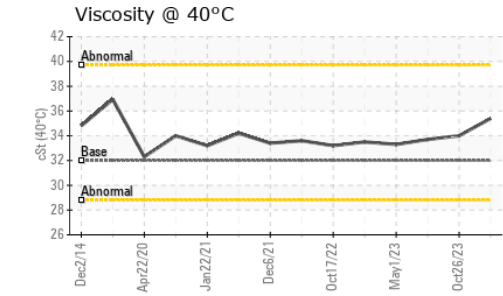
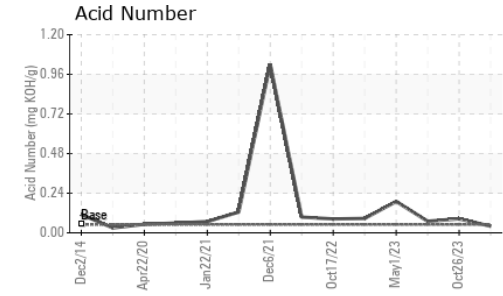
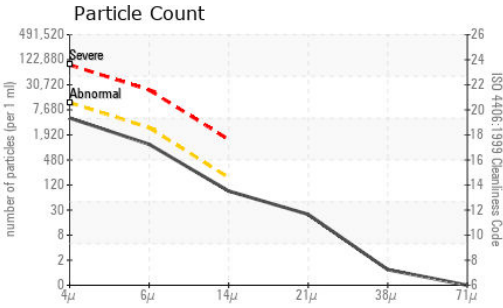
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		<b>13</b>	12	12
Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Tin	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</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>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Calcium	ppm	ASTM D5185m		<b>2</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>8</b>	0	2
Zinc	ppm	ASTM D5185m		<b>4</b>	0	2
Sulfur	ppm	ASTM D5185m		<b>348</b>	0	27

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<b>0</b>	<1	0
Sodium	ppm	ASTM D5185m		<b>0</b>	1	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844		<b>0</b>	0	0
Nitration	Abs/cm	*ASTM D7624		<b>1.7</b>	1.7	1.6
Sulfation	Abs./1mm	*ASTM D7415		<b>10.6</b>	10.6	10.4

# OIL ANALYSIS REPORT



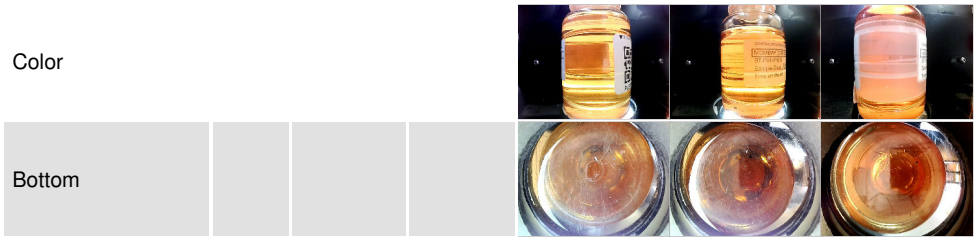
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>4275</b>	2175	6799
Particles >6µm	ASTM D7647	>2500	<b>1001</b>	452	716
Particles >14µm	ASTM D7647	>160	<b>76</b>	43	27
Particles >21µm	ASTM D7647	>40	<b>21</b>	14	5
Particles >38µm	ASTM D7647	>10	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/14	<b>19/17/13</b>	18/16/13	20/17/12

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414		<b>2.2</b>	2.2	2.1
Acid Number (AN)	mg KOH/g ASTM D8045	.05	<b>0.04</b>	0.085	0.07

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar *Visual	NONE	<b>NONE</b>	LIGHT	NONE
Sand/Dirt	scalar *Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar *Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar *Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar *Visual	>2	<b>NEG</b>	NEG	NEG
Free Water	scalar *Visual		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	32	<b>35.4</b>	34.0	33.7

### SAMPLE IMAGES



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PLS0000716 **Received** : 01 Feb 2024  
**Lab Number** : **06077604** **Tested** : 02 Feb 2024  
**Unique Number** : 10859695 **Diagnosed** : 09 Feb 2024 - Mike Johnson  
**Test Package** : IND 2 ( Additional Tests: FT-IR, PQ, PrtCount )

**HEXION - BAYTOWN PLANT**  
 8450 WEST BAY RD  
 BAYTOWN, TX  
 US 77520  
 Contact: BILL MINER  
 bill.miner@momentive.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)