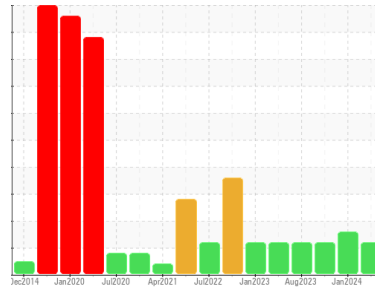


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
BT-FOR-A4 (S/N TANK FT4 AGITATOR)
Component
Gearbox
Fluid
SHELL OMALA S2 GX 220 (--- GAL)

DIAGNOSIS

Recommendation

Filter oil if possible using B6=75 filter media or better. No other action required at this time. Resample at next normal interval.

Wear

Wear particles are low and acceptable.

Contamination

Particle contamination is elevated. Filtration can help extend machine life.

Fluid Condition

Fluid health indicators are acceptable for continued use.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PLS0000869	PLS0000808	PLS0000781
Sample Date	Client Info		17 Apr 2024	31 Jan 2024	25 Oct 2023
Machine Age	mths	Client Info	3	3	0
Oil Age	mths	Client Info	0	0	1
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		13	18	15
Iron	ppm	ASTM D5185m >200	13	13	23
Chromium	ppm	ASTM D5185m >15	0	0	0
Nickel	ppm	ASTM D5185m >15	0	0	0
Titanium	ppm	ASTM D5185m	0	0	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	0	0
Lead	ppm	ASTM D5185m >100	0	0	0
Copper	ppm	ASTM D5185m >200	<1	0	0
Tin	ppm	ASTM D5185m >25	<1	0	0
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 6.2	0	0	0
Barium	ppm	ASTM D5185m 0.0	0	<1	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m 0	2	4	0
Calcium	ppm	ASTM D5185m 0.0	6	4	0
Phosphorus	ppm	ASTM D5185m 290	300	271	178
Zinc	ppm	ASTM D5185m 3.8	0	14	0
Sulfur	ppm	ASTM D5185m 8167	12438	9730	8721

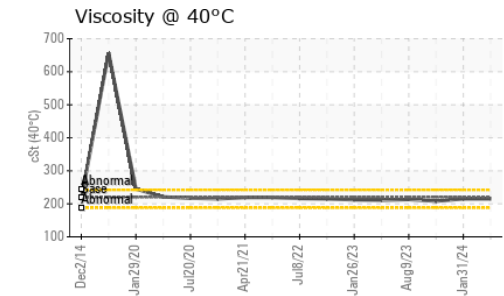
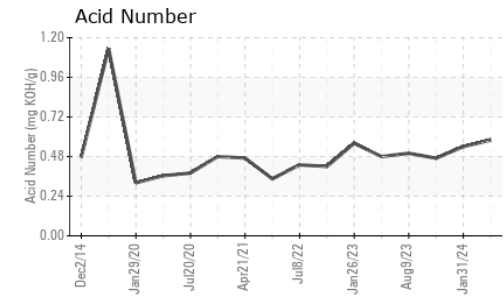
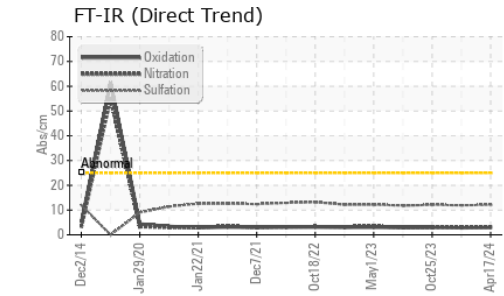
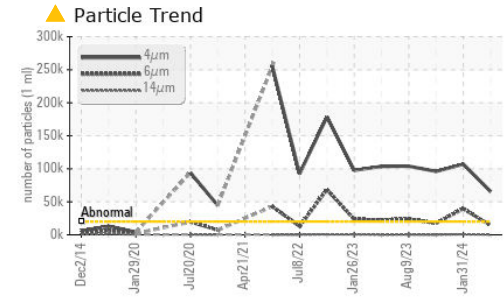
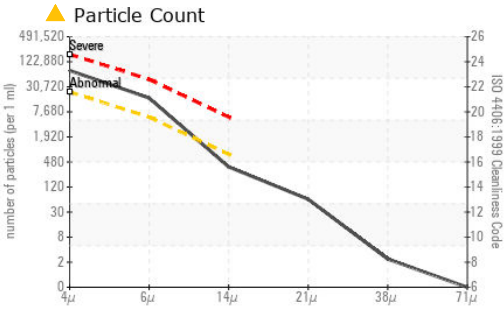
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	2	2	<1
Sodium	ppm	ASTM D5185m	2	0	<1
Potassium	ppm	ASTM D5185m >20	<1	0	0

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624	3.1	3.0	2.9
Sulfation	Abs/1mm	*ASTM D7415	12.1	11.9	12.1

OIL ANALYSIS REPORT



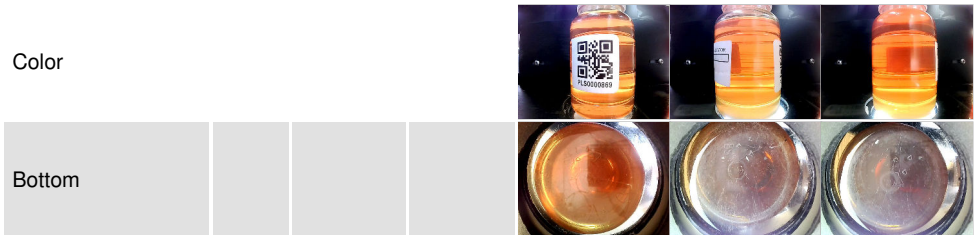
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	▲ 65520	▲ 106985	▲ 96005
Particles >6µm	ASTM D7647	>5000	▲ 14326	▲ 39457	▲ 17470
Particles >14µm	ASTM D7647	>640	322	▲ 831	105
Particles >21µm	ASTM D7647	>160	54	98	12
Particles >38µm	ASTM D7647	>40	2	2	0
Particles >71µm	ASTM D7647	>10	0	0	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	▲ 23/21/16	▲ 24/22/17	▲ 24/21/14

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414		2.9	2.8	3.1
Acid Number (AN)	mg KOH/g ASTM D8045		0.58	0.54	0.47

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	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	NONE	NONE
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	>0.2	NEG	NEG	NEG
Free Water	scalar *Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D445	220	215	215	208

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PLS0000869 **Received** : 19 Apr 2024
Lab Number : **06154196** **Tested** : 06 May 2024
Unique Number : 10989619 **Diagnosed** : 07 May 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)