

OIL ANALYSIS REPORT

Area **RING CONTAINER EXTRUDER K - MAIN PLANT**

Hydraulic Power Pack SHELL TELLUS 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

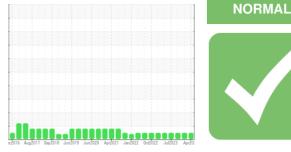
All component wear rates are normal.

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 Rating Trend

Sample Date Info 02 Apr 2024 25 Jan 2024 18 Oct 2023 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info Not Changd NorMAL NorMAL NorMAL Sample Status Imit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >20 0 0 <1							
Sample Date Client Info 02 Apr 2024 25 Jan 2024 18 Oct 2023 Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info Not Changd Not Changd Not Changd Nor MAL Nor MAL CONTAMINATION method imit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >20 0 0 <1	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 0 0 Oil Age hrs Client Info Not Changd Not Changd Not Changd Sample Status Image Client Info Not Changd Not Changd Nor MAL CONTAMINATION method Imit/base current History1 History2 Water WC Method >0.0.5 NEG NEG NEG WEAR METALS method imit/base current History1 History2 Iron ppm ASTM D5185m >20 0 0 -1 Nickel ppm ASTM D5185m >20 0 0 -1 Silver ppm ASTM D5185m >20 0 0 -1 Copper ppm ASTM D5185m >20 0 -1 0 -1 Cadmium ppm ASTM D5185m >20 0 -1 0 -1 ASTM D5185m >20 0 0 -1	Sample Number		Client Info		WC0892744	WC0891200	WC0855536
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info Not Changd Not Changd Not Changd Sample Status Imit base Imit base Imit base Nor Anagd CONTAMINATION method Imit base Imit base Imit base Water WC Method >0.05 NEG NEG NEG WEAR METALS method Imit base Imit base Imit base Imit base Chromium ppm ASTM D5185m >20 2 2 12 Chromium ppm ASTM D5185m >20 0 0 <1 Nickel ppm ASTM D5185m >20 0 0 <1 Aluminum ppm ASTM D5185m >20 0 0 <1 Lead ppm ASTM D5185m >20 3 4 11 Tin ppm ASTM D5185m >20 3 4 11 Chromium ppm ASTM D5185m >20 3 4 11 Cadmium ppm ASTM D5185m >20 3 4 11 Copper ppm ASTM D5185m >20 3 4	Sample Date		Client Info		02 Apr 2024	25 Jan 2024	18 Oct 2023
Oil Changed Client Info Not Changd Not Changd Not Changd Sample Status Client Info Not Changd Not Changd Not Changd CONTAMINATION method Imit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D585m >20 Q Q <10	Machine Age	hrs	Client Info			0	0
Sample Status NORMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 Q O o ctrain Nickel ppm ASTM D5185m >20 Q O o O Astm D5185m 0 0 0 0 0 0 0 Aluminum ppm ASTM D5185m >20 C1 0 -11 Lead ppm ASTM D5185m >20 G 0 0 -11 Vanadium ppm ASTM D5185m >20 C1 0 -11 Copper ppm ASTM D5185m 0 0 0 0 0 Addium ppm ASTM D5185m <t< th=""><th>Oil Age</th><th>hrs</th><th>Client Info</th><th></th><th>0</th><th>0</th><th>0</th></t<>	Oil Age	hrs	Client Info		0	0	0
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 2 2 12 Chromium ppm ASTM D5185m >20 0 0 <1 Nickel ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 <1 0 <1 Lead ppm ASTM D5185m >20 <1 0 <1 Cadmium ppm ASTM D5185m >20 <1 0 <1 Cadmium ppm ASTM D5185m >20 <1 0 <1 Cadmium ppm ASTM D5185m 0 0 0 <1 ADDITVES method limit/base current history1 hi	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Water WC Method >0.05 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 2 2 12 Chromium ppm ASTM D5185m >20 0 0 <1 Nickel ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 <1 Lead ppm ASTM D5185m >20 <1 0 <1 Lead ppm ASTM D5185m >20 3 4 11 Tin ppm ASTM D5185m >20 <1 0 0 Vanadium ppm ASTM D5185m >20 <1 0 0 <1 Vanadium ppm ASTM D5185m 0 0 0 <1 0 Copper ppm ASTM D5185m 0 0	Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 2 2 12 Chromium ppm ASTM D5185m >20 0 0 <1 Nickel ppm ASTM D5185m >20 0 0 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >20 0 0 <1 Lead ppm ASTM D5185m >20 0 0 <1 Copper ppm ASTM D5185m >20 3 4 11 Tin ppm ASTM D5185m >20 3 4 11 Vanadium ppm ASTM D5185m >20 3 4 11 Tin ppm ASTM D5185m 0 0 0 <1 Admium ppm ASTM D5185m 0 0 0 <1 <th>CONTAMINATION</th> <th>N</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINATION	N	method	limit/base	current	history1	history2
Iron ppm ASTM D5185m >20 2 2 12 Chromium ppm ASTM D5185m >20 0 0 <1 Nickel ppm ASTM D5185m >20 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 <1 0 Aduminum ppm ASTM D5185m >20 0 0 <1 1 Lead ppm ASTM D5185m >20 3 4 11 1 Tin ppm ASTM D5185m >20 <1 0 <1 0 Cadmium ppm ASTM D5185m 0 0 0 <1 1 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 0.0 0 <1 1 Magnaesee ppm	Water		WC Method	>0.05	NEG	NEG	NEG
Chromium ppm ASTM D5185m >20 0 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185m >20 0 0 <1	Iron	ppm	ASTM D5185m	>20	2	2	12
Nickel ppm ASTM D5185m >20 0 0 0 Titanium ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >20 <1 0 <1 Lead ppm ASTM D5185m >20 3 4 11 Tin ppm ASTM D5185m >20 3 4 11 Tin ppm ASTM D5185m >20 <1 0 <1 Vanadium ppm ASTM D5185m >20 <1 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 0 Boron ppm ASTM D5185m 0 140 145 120 Magnaese ppm ASTM D5185m 0 140 0 0 Magnesium ppm ASTM D5185m 11 0 0 <1	Chromium		ASTM D5185m	>20	0	0	<1
Titanium ppm ASTM D5185m 0 <1	Nickel				0	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >20 <1	Titanium		ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >20 0 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >20 0 0 <1	Aluminum		ASTM D5185m	>20	<1	0	<1
Tin ppm ASTM D5185m >20 <1	Lead	ppm	ASTM D5185m	>20	0	0	<1
Vanadium ppm ASTM D5185m <1	Copper	ppm	ASTM D5185m	>20	3	4	11
Cadmium ppm ASTM D5185m 0 0 <1	Tin	ppm	ASTM D5185m	>20	<1	0	<1
CadmiumppmASTM D5185m00<1	Vanadium	ppm	ASTM D5185m		<1	0	0
Boron ppm ASTM D5185m 0.0 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 <1 Molybdenum ppm ASTM D5185m 0 140 145 120 Manganese ppm ASTM D5185m 0 140 145 120 Magnesium ppm ASTM D5185m 0 140 0 0 <1 Calcium ppm ASTM D5185m 11 0 0 <1 0 <1 Calcium ppm ASTM D5185m 35 47 37 40 Phosphorus ppm ASTM D5185m 266 445 441 344 Zinc ppm ASTM D5185m 1847 1976 1610 2040 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm <th>Cadmium</th> <th></th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>0</th> <th><1</th>	Cadmium		ASTM D5185m		0	0	<1
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 140 145 120 Manganese ppm ASTM D5185m 0 140 145 120 Magnesium ppm ASTM D5185m 11 0 0 <1 Calcium ppm ASTM D5185m 35 47 37 40 Phosphorus ppm ASTM D5185m 266 445 441 344 Zinc ppm ASTM D5185m 276 418 403 302 Sulfur ppm ASTM D5185m 1847 1976 1610 2040 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >20 0 0 1 Potassium ppm ASTM D							
Molybdenum ppm ASTM D5185m 0 140 145 120 Manganese ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Manganese ppm ASTM D5185m <1	ADDITIVES Boron	ppm					
Magnesium ppm ASTM D5185m 11 0 0 <1			ASTM D5185m	0.0	0	0	0
Calcium ppm ASTM D5185m 35 47 37 40 Phosphorus ppm ASTM D5185m 266 445 441 344 Zinc ppm ASTM D5185m 266 445 441 344 Zinc ppm ASTM D5185m 276 418 403 302 Sulfur ppm ASTM D5185m 1847 1976 1610 2040 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >20 0 0 1 Potassium ppm ASTM D5185m >20 0 0 1 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >100 14 30<	Boron Barium	ppm	ASTM D5185m ASTM D5185m	0.0 0	0 0	0	0 <1
Phosphorus ppm ASTM D5185m 266 445 441 344 Zinc ppm ASTM D5185m 276 418 403 302 Sulfur ppm ASTM D5185m 276 418 403 302 Sulfur ppm ASTM D5185m 1847 1976 1610 2040 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >20 0 0 1 Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >4µm ASTM D7647 >160 11	Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0	0 0 140	0 0 145	0 <1 120
Zinc ppm ASTM D5185m 276 418 403 302 Sulfur ppm ASTM D5185m 1847 1976 1610 2040 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >20 0 0 1 Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >1300 122 151 362 Particles >14µm ASTM D7647 40 3 4 <	Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 0	0 0 140 <1	0 0 145 0	0 <1 120 0
Sulfur ppm ASTM D5185m 1847 1976 1610 2040 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >160 11 14 30 Particles >14µm ASTM D7647 >160 11 14 30 Particles >21µm ASTM D7647 >10 0 0 1 Particles >38µm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 0 11	0 0 140 <1 0	0 0 145 0 0	0 <1 120 0 <1
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >1300 122 151 362 Particles >6µm ASTM D7647 >160 11 14 30 Particles >14µm ASTM D7647 >40 3 4 7 Particles >38µm ASTM D7647 >10 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 0 11 35	0 0 140 <1 0 47	0 0 145 0 0 37	0 <1 120 0 <1 40
Silicon ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Sodium ppm ASTM D5185m >15 2 2 4 Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >1300 122 151 362 Particles >14µm ASTM D7647 >160 11 14 30 Particles >21µm ASTM D7647 >10 0 0 1 Particles >38µm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 11 35 266	0 0 140 <1 0 47 445	0 0 145 0 0 37 441	0 <1 120 0 <1 40 344
Sodium ppm ASTM D5185m <1	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276	0 0 140 <1 0 47 445 418	0 0 145 0 0 37 441 403	0 <1 120 0 <1 40 344 302
Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >1300 122 151 362 Particles >14µm ASTM D7647 >160 11 14 30 Particles >21µm ASTM D7647 >40 3 4 7 Particles >38µm ASTM D7647 >10 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847	0 0 140 <1 0 47 445 418 1976	0 0 145 0 0 37 441 403 1610	0 <1 120 0 <1 40 344 302 2040
Potassium ppm ASTM D5185m >20 0 0 1 FLUID CLEANLINESS method limit/base current history1 history2 Particles >4µm ASTM D7647 >5000 737 752 1247 Particles >6µm ASTM D7647 >1300 122 151 362 Particles >14µm ASTM D7647 >160 11 14 30 Particles >21µm ASTM D7647 >40 3 4 7 Particles >38µm ASTM D7647 >10 0 0 1 Particles >71µm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method	0.0 0 11 35 266 276 1847 Limit/base	0 0 140 <1 0 47 445 418 1976 current	0 0 145 0 0 37 441 403 1610 history1	0 <1 120 0 <1 40 344 302 2040 history2
Particles >4μm ASTM D7647 >5000 737 752 1247 Particles >6μm ASTM D7647 >1300 122 151 362 Particles >14μm ASTM D7647 >160 11 14 30 Particles >14μm ASTM D7647 >40 3 4 7 Particles >21μm ASTM D7647 >10 0 0 1 Particles >38μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0.0 0 11 35 266 276 1847 Limit/base	0 0 140 <1 0 47 445 418 1976 current 2	0 0 145 0 0 37 441 403 1610 history1 2	0 <1 120 0 <1 40 344 302 2040 history2 4
Particles >6μm ASTM D7647 >1300 122 151 362 Particles >14μm ASTM D7647 >160 11 14 30 Particles >21μm ASTM D7647 >40 3 4 7 Particles >38μm ASTM D7647 >10 0 0 1 Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847 Limit/base	0 0 140 <1 0 47 445 418 1976 <u>current</u> 2 <1	0 0 145 0 0 37 441 403 1610 history1 2 0	0 <1 120 0 <1 40 344 302 2040 history2 4 1
Particles >14μm ASTM D7647 >160 11 14 30 Particles >21μm ASTM D7647 >40 3 4 7 Particles >38μm ASTM D7647 >10 0 0 1 Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847 limit/base >15	0 0 140 <1 0 47 445 418 1976 current 2 2 <1 0	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1
Particles >21μm ASTM D7647 >40 3 4 7 Particles >38μm ASTM D7647 >10 0 0 1 Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847 limit/base >15 >20 limit/base	0 0 140 <1 0 47 445 418 1976 <u>current</u> 2 <1 0	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0 0	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1 1 1 history2
Particles >38μm ASTM D7647 >10 0 0 1 Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847 Iimit/base >15 >20 Iimit/base >5000	0 0 140 <1 0 47 445 418 1976 <u>current</u> 2 <1 0 <u>current</u>	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0 0 history1 752	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1 1 1 history2 1247
Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300	0 0 140 <1 0 47 445 418 1976 <u>current</u> 2 <1 0 <u>current</u> 737 122	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0 history1 752 151	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1 1 history2 1247 362
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0.0 0 11 35 266 276 1847 Imit/base >15 >20 Imit/base >5000 >1300 >160	0 0 140 <1 0 47 445 418 1976 current 2 <1 0 current 737 122 11	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0 0 history1 752 151 14	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1 1 history2 1247 362 30
Oil Cleanliness ISO 4406 (c) >19/17/14 17/14/11 17/14/11 17/16/12	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0.0 0 11 35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160 >40	0 0 140 <1 0 47 445 418 1976 Current 2 <1 0 Current 737 122 11 3	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0 V history1 752 151 14 4	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1 1 history2 1247 362 30 7
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0.0 0 11 35 266 276 1847 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	0 0 140 <1 0 47 445 418 1976 <u>current</u> 2 <1 0 <u>current</u> 737 122 11 3 0	0 0 145 0 0 37 441 403 1610 history1 2 0 0 0 history1 752 151 151 14 4 0 0	0 <1 120 0 <1 40 344 302 2040 history2 4 1 1 1 history2 1247 362 30 7 1

mg KOH/g ASTM D8045 0.36

0.53

0.510 0.52

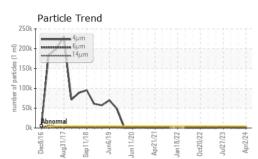
Report Id: MOTYOR [WUSCAR] 06143010 (Generated: 04/11/2024 20:21:34) Rev: 1

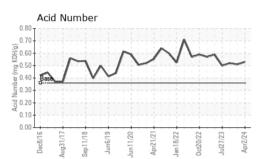
Submitted By: Bill Trimmer

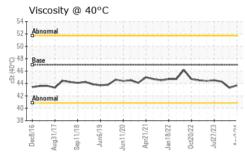
Page 1 of 2

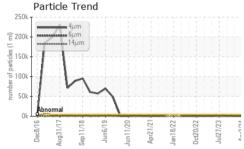


OIL ANALYSIS REPORT

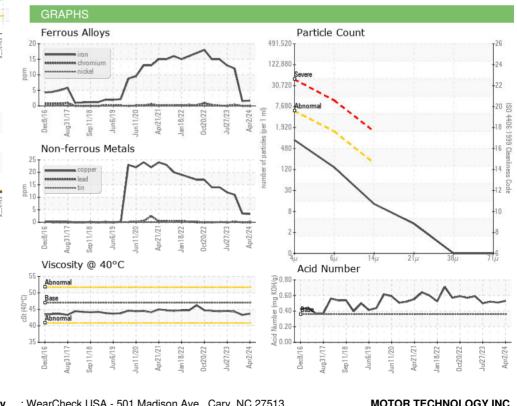








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46.99	43.7	43.3	44.3
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color						
Bottom						



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 MOTOR TECHNOLOGY INC Sample No. : WC0892744 Received : 09 Apr 2024 515 WILLOW SPRINGS LN Lab Number : 06143010 Tested : 10 Apr 2024 YORK, PA Unique Number : 10967818 Diagnosed : 11 Apr 2024 - Jonathan Hester US 17406 Test Package : IND 2 Contact: Bill Trimmer Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. btrimmer@motortechnologyinc.com T: (717)266-4045

* - 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)

Report Id: MOTYOR [WUSCAR] 06143010 (Generated: 04/11/2024 20:21:34) Rev: 1

Submitted By: Bill Trimmer

Page 2 of 2

F: