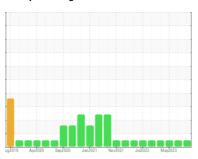


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



LIM4_U41 LIM4_U41_M41

Non-Drive End Bearing

ROYAL PURPLE SYNFILM GT 32 (2 GAL)

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Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Date Client Info 24 Oct 2023 18 Jul 2023 18 May 2023 19 May 2023			ug2019 Ap	r2020 Sep2020 Jan2	021 Nov2021 Jul2022	May2023		
Sample Date Client Info 24 Oct 2023 18 Jul 2023 18 May 2023 18 Jul 2023 18 May 2023 18 Jul 2024 N/A	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age	Sample Number		Client Info		RP0029412	RP0029446	RP0029436	
Dil Changed	Sample Date		Client Info		24 Oct 2023	18 Jul 2023	18 May 2023	
Client Info	Machine Age	hrs	Client Info		0	0	0	
NORMAL NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 history2 cron ppm ASTM D5185m >20 0 0 0 0 0 0 0 0 0	Oil Age	hrs	Client Info		0	0	0	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 0 <1	Oil Changed		Client Info		N/A	N/A	N/A	
Chromium	Sample Status				NORMAL	NORMAL	NORMAL	
Chromium ppm ASTM D5185m ≥20 0 0 0 Nickel ppm ASTM D5185m ≥20 0 0 <1 Tittanium ppm ASTM D5185m 0 0 0 OSIiver ppm ASTM D5185m 20 <1 <1 <1 Lead ppm ASTM D5185m >20 <1 <1 <1 <1 Copper ppm ASTM D5185m >20 <1 <1 <1 <1 Tin ppm ASTM D5185m >20 <16 16 13 Tin ppm ASTM D5185m 20 <1 <1 1 Vanadium ppm ASTM D5185m 0 0 0 0 Caddium ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 <t< td=""><td>WEAR METALS</td><td></td><td>method</td><td>limit/base</td><td>current</td><td>history1</td><td>history2</td></t<>	WEAR METALS		method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>20	0	<1	<1	
Description	Chromium	ppm	ASTM D5185m	>20	0	0	0	
Silver	Nickel	ppm	ASTM D5185m	>20	0	0	<1	
Alluminum	Titanium	ppm	ASTM D5185m		0	0	0	
Lead	Silver	ppm	ASTM D5185m		0	0	0	
Copper	Aluminum	ppm	ASTM D5185m	>20	<1	<1	<1	
Copper	Lead	ppm	ASTM D5185m	>20	<1	0	0	
Name	Copper		ASTM D5185m	>20	16	16	13	
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 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 <1 Magnesium ppm ASTM D5185m 0 4 3 P1 Calcium ppm ASTM D5185m 0 4 3 P1 Phosphorus ppm ASTM D5185m 5 0 <1 2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 4 3	• •		ASTM D5185m	>20	<1	<1	1	
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 0 0 0 -1 Magnesium ppm ASTM D5185m 0 4 3 91 Calcium ppm ASTM D5185m 0 6 8 21 3 85 91 91 91 91 91 92 91 92 91 92 91 92 91 92 91 92 91 92 91 92 91 92 91 92 92 92 92 92 92 92 92 92 92	Vanadium		ASTM D5185m		0	0	0	
Boron ppm ASTM D5185m 0 0 0 0 0	Cadmium				0		0	
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum ppm ASTM D5185m 0 0 0 Manganese ppm ASTM D5185m 0 0 <1	Boron	ppm	ASTM D5185m		0	0	0	
Manganese ppm ASTM D5185m 0 0 <1 Magnesium ppm ASTM D5185m 73 85 91 Calcium ppm ASTM D5185m 0 4 3 Phosphorus ppm ASTM D5185m 0 6 8 Zinc ppm ASTM D5185m 5 0 <1	Barium	ppm	ASTM D5185m		0	0	0	
Magnesium ppm ASTM D5185m 73 85 91 Calcium ppm ASTM D5185m 0 4 3 Phosphorus ppm ASTM D5185m 0 6 8 Zinc ppm ASTM D5185m 5 0 <1	Molybdenum	ppm	ASTM D5185m		0	0	0	
Calcium ppm ASTM D5185m 0 4 3 Phosphorus ppm ASTM D5185m 0 6 8 Zinc ppm ASTM D5185m 5 0 <1	Manganese	ppm	ASTM D5185m		0	0	<1	
Phosphorus ppm ASTM D5185m 0 6 8 Zinc ppm ASTM D5185m 5 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 4 3 Sodium ppm ASTM D5185m >15 4 4 3 Sodium ppm ASTM D5185m >20 1 0 1 Water % ASTM D5185m <20 1 0 0 1 <th c<="" td=""><td>Magnesium</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>73</td><td>85</td><td>91</td></th>	<td>Magnesium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>73</td> <td>85</td> <td>91</td>	Magnesium	ppm	ASTM D5185m		73	85	91
Zinc ppm ASTM D5185m 5 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 4 3 Sodium ppm ASTM D5185m >10 1 2 Potassium ppm ASTM D5185m >20 1 0 1 Water % ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 191.3 212.3 124.2 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE	Calcium	ppm	ASTM D5185m		0	4	3	
Zinc ppm ASTM D5185m 5 0 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >15 4 4 3 Sodium ppm ASTM D5185m >20 1 0 1 Potassium ppm ASTM D5185m >20 1 0 1 Water % ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 >2 0.019 0.021 0.012 Ppm Water ppm ASTM D6304 P <td>Phosphorus</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>0</td> <td>6</td> <td>8</td>	Phosphorus	ppm	ASTM D5185m		0	6	8	
Silicon	Zinc	ppm	ASTM D5185m		5	0	<1	
Sodium	CONTAMINANTS		method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 1 0 1 Water % ASTM D6304 >2 0.019 0.021 0.012 ppm Water ppm ASTM D6304 191.3 212.3 124.2 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 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 NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML NORML <td>Silicon</td> <td>ppm</td> <td>ASTM D5185m</td> <td>>15</td> <td>4</td> <td>4</td> <td>3</td>	Silicon	ppm	ASTM D5185m	>15	4	4	3	
Water % ASTM D6304 >2 0.019 0.021 0.012 opm Water ppm ASTM D6304 191.3 212.3 124.2 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 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 NONE NONE Sand/Dirt scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML <td>Sodium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td><1</td> <td>1</td> <td>2</td>	Sodium	ppm	ASTM D5185m		<1	1	2	
PPPM Water PPPM ASTM D6304 191.3 212.3 124.2 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	1	0	1	
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 White Metal scalar *Visual NONE NONE NONE NONE NONE NONE NONE NONE NONE	Water	%	ASTM D6304	>2	0.019	0.021	0.012	
Acid Number (AN) mg KOH/g ASTM D8045 0.40 0.41 0.39 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE 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	ppm Water	ppm	ASTM D6304		191.3	212.3	124.2	
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 NORML NORML	FLUID DEGRADA	TION	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	Acid Number (AN)	mg KOH/g	ASTM D8045		0.40	0.41	0.39	
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 NORML NORML NORML NORML NORML Appearance scalar *Visual NORML NORML NORML NORML NORML	VISUAL		method	limit/base	current	history1	history2	
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	White Metal	scalar		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	Yellow Metal	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	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearance scalar *Visual NORML NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML NORML	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML NORML	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
				NORML	NORML	NORML		
			*Visual					

NDREW WYDERKALENELIM

NEG

scalar *Visual



OIL ANALYSIS REPORT







Report Id: ENELIM [WUSCAR] 05995063 (Generated: 11/02/2023 10:04:16) Rev: 1

Laboratory Sample No. Lab Number **Unique Number** Test Package : PLANT

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : RP0029412 : 05995063

: 10723423

Received : 31 Oct 2023 : 02 Nov 2023 Diagnosed Diagnostician : Don Baldridge **ENERGY TRANSFER - LIMA** 1520 BUCKEYE RD

LIMA, OH US 45804

Contact: ANDREW WYDERKA

andrew.wyderka@energytransfer.com T: (419)618-1505

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)

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