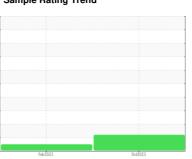


OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



VRU 1 PUMP 2

Component

Non-Drive End Screw Compressor

ROYAL PURPLE SYNFILM GT 100 (--- GAL)

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▲ Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

▲ Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

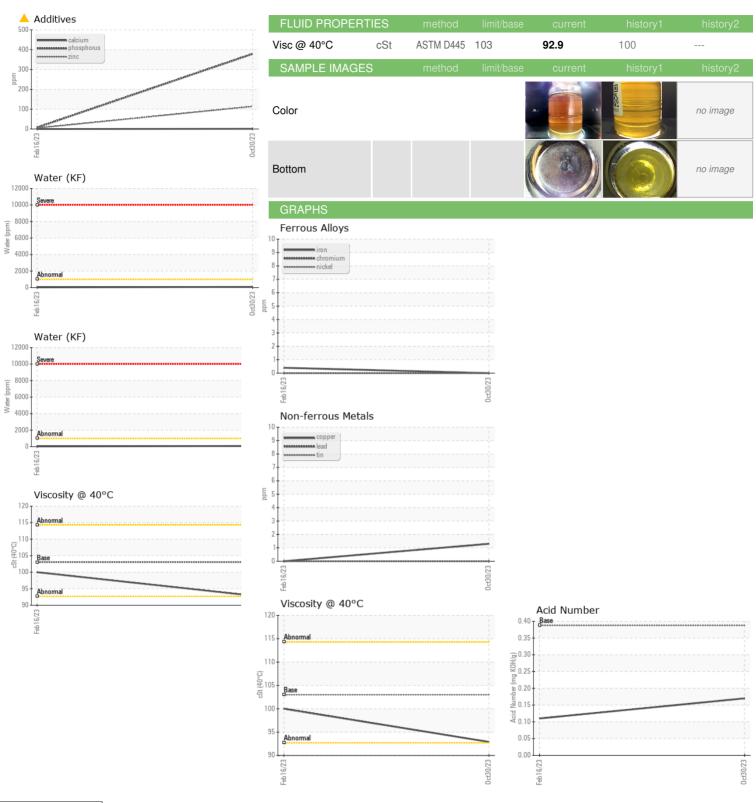
SAMPLE INFORMATION method limit/base current history1 history2)			Feb 2023	0ct2023			
Sample Date Client Info 30 Oct 2023 16 Feb 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Machine Age mths Client Info 0 0 Oil Age miths Client Info 0 0 Oil Changed Client Info N/A N/A Sample Status WEAR METALS method Imitibase current history1 history2 Iron ppm ASTM D5185m >60 0 <1	Sample Number		Client Info		RP0033514	RP0027837		
Oil Age mths Client Info N/A N/A	Sample Date		Client Info		30 Oct 2023	16 Feb 2023		
Oil Changed Status Client Info N/A N/A	Machine Age	mths	Client Info		0	0		
Sample Status	Oil Age	mths	Client Info		0	0		
WEAR METALS	Oil Changed		Client Info		N/A	N/A		
Iron	Sample Status				ATTENTION	NORMAL		
Chromium	WEAR METALS		method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>60	0	<1		
Titanium ppm ASTM D5185m 0 -1 Silver ppm ASTM D5185m 0 0 Aluminum ppm ASTM D5185m >5 0 -1 Lead ppm ASTM D5185m >10 0 0 Copper ppm ASTM D5185m >30 1 0 Tin ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 Boron ppm ASTM D5185m 0 0 Boron ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 0	Chromium	ppm	ASTM D5185m	>4	0	0		
Silver	Nickel	ppm	ASTM D5185m		0	0		
Aluminum ppm ASTM D5185m >5 0 <1 Lead ppm ASTM D5185m >10 0 0 Copper ppm ASTM D5185m >30 1 0 Tin ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 <1	Titanium	ppm	ASTM D5185m		0	<1		
Lead	Silver	ppm	ASTM D5185m		0	0		
Copper ppm ASTM D5185m >30 1 0	Aluminum	ppm	ASTM D5185m	>5	0	<1		
Tin ppm ASTM D5185m >15 0 0	Lead	ppm	ASTM D5185m	>10	0	0		
Tin ppm ASTM D5185m >15 0 0	Copper	ppm	ASTM D5185m	>30	1	0		
Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 -1 Magnesium ppm ASTM D5185m 0 -1 Magnesium ppm ASTM D5185m 0 -1 8 Calcium ppm ASTM D5185m 1 0 0 Phosphorus ppm ASTM D5185m 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Tin	ppm	ASTM D5185m	>15	0	0		
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	<1		
Boron	Cadmium	ppm	ASTM D5185m		0	0		
Barium ppm ASTM D5185m 0 0 Molybdenum ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum ppm ASTM D5185m 0 <1 Manganese ppm ASTM D5185m <1 <1 Magnesium ppm ASTM D5185m 90 ▲ <1 8 Calcium ppm ASTM D5185m 1 0 Phosphorus ppm ASTM D5185m 35 ▲ 379 8 Zinc ppm ASTM D5185m ▲ 114 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >0 <1 Vater % ASTM D6185m >20 3 3 Water % ASTM D6304 >0.1 0.007 0.003 <th< td=""><td>Boron</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>0</td><td>0</td><td></td></th<>	Boron	ppm	ASTM D5185m		0	0		
Manganese ppm ASTM D5185m <1 <1 Magnesium ppm ASTM D5185m 90 ▲ <1	Barium	ppm	ASTM D5185m		0	0		
Magnesium ppm ASTM D5185m 90 ▲ <1 8 Calcium ppm ASTM D5185m 1 0 Phosphorus ppm ASTM D5185m 35 ▲ 379 8 Zinc ppm ASTM D5185m ▲ 114 4 Zinc ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >20 3 3 Vater % ASTM D5185m >20 3 3 Water % ASTM D5185m >20 3 3	Molybdenum	ppm	ASTM D5185m		0	<1		
Magnesium ppm ASTM D5185m 90 ▲ <1 8 Calcium ppm ASTM D5185m 1 0 Phosphorus ppm ASTM D5185m 35 ▲ 379 8 Zinc ppm ASTM D5185m ▲ 114 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >20 3 3 Vater % ASTM D6304 >0.1 0.007 0.003 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg K0Hg ASTM D8045 0.388 0.17 0.11 <td colspan<="" td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td></td><td><1</td><td><1</td><td></td></td>	<td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td><1</td> <td><1</td> <td></td>	Manganese	ppm	ASTM D5185m		<1	<1	
Phosphorus ppm ASTM D5185m 35 ▲ 379 8 Zinc ppm ASTM D5185m ▲ 114 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >50 17 34 Potassium ppm ASTM D5185m >20 3 3 Potassium ppm ASTM D6304 >0.1 0.007 0.003 Water % ASTM D6304 >0.1 0.007 0.003 ppm Water ppm ASTM D6304 >1000 79 39.0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045	-	ppm	ASTM D5185m	90	▲ <1	8		
Phosphorus ppm ASTM D5185m 35 ▲ 379 8 Zinc ppm ASTM D5185m ▲ 114 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m >20 3 3 Potassium ppm ASTM D5185m >20 3 3 Water % ASTM D6304 >0.1 0.007 0.003 ppm Water ppm ASTM D6304 >1000 79 39.0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.388 0.17 0.11 VISUAL method limit/base	Calcium	ppm	ASTM D5185m		1	0		
Zinc ppm ASTM D5185m ▲ 114 4 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m 0 <1	Phosphorus	ppm	ASTM D5185m	35	▲ 379	8		
Silicon ppm ASTM D5185m >50 17 34 Sodium ppm ASTM D5185m 0 <1	Zinc		ASTM D5185m		114	4		
Sodium ppm ASTM D5185m 0 <1 Potassium ppm ASTM D5185m >20 3 3 Water % ASTM D6304 >0.1 0.007 0.003 ppm Water ppm ASTM D6304 >1000 79 39.0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.388 0.17 0.11 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	CONTAMINANTS	3	method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 3 3 Water % ASTM D6304 >0.1 0.007 0.003 ppm Water ppm ASTM D6304 >1000 79 39.0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg K0H/g ASTM D8045 0.388 0.17 0.11 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	Silicon	ppm	ASTM D5185m	>50	17	34		
Water % ASTM D6304 >0.1 0.007 0.003 ppm Water ppm ASTM D6304 >1000 79 39.0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.388 0.17 0.11 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 Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NORML NORML N	Sodium	ppm	ASTM D5185m		0	<1		
ppm Water ppm ASTM D6304 >1000 79 39.0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.388 0.17 0.11 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	Potassium	ppm	ASTM D5185m	>20	3	3		
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.388 0.17 0.11 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 Silt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	Water	%	ASTM D6304	>0.1	0.007	0.003		
Acid Number (AN) mg KOH/g ASTM D8045 0.388 0.17 0.11 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 Odor scalar *Visual NORML NORML NORML	ppm Water	ppm	ASTM D6304	>1000	79	39.0		
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 LIGHT NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	FLUID DEGRADA	NOITA	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 LIGHT NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	Acid Number (AN)	mg KOH/g	ASTM D8045	0.388	0.17	0.11		
Yellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONELIGHTNONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML	VISUAL		method	limit/base	current	history1	history2	
Precipitate scalar *Visual NONE NONE NONE Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE LIGHT NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	White Metal	scalar	*Visual	NONE	NONE	NONE		
Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE LIGHT NONE Sand/Dirt scalar *Visual NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE		
Debrisscalar*VisualNONELIGHTNONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML	Precipitate	scalar	*Visual	NONE	NONE	NONE		
Sand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML	Silt	scalar	*Visual	NONE	NONE	NONE		
Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML	Debris	scalar	*Visual	NONE	LIGHT	NONE		
Odor scalar *Visual NORML NORML NORML	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE		
	Appearance	scalar	*Visual	NORML				
Emulsified Water scalar *Visual >0.1 NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG		

NEG

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OIL ANALYSIS REPORT





Certificate L2367

Laboratory Sample No. Lab Number

Unique Number

: RP0033514 : 06062889 : 10834271 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 17 Jan 2024 : 19 Jan 2024 Diagnosed Diagnostician : Don Baldridge

MAGELLAN MIDSTREAM - EH TERMINAL 7901 WALLISVILLE RD HOUSTON, TX

US 77029 Contact: LOGAN SEYL

logan.seyl@magellanlp.com T:

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)

Contact/Location: LOGAN SEYL - MAGHOU

F: