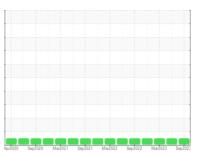


# **OIL ANALYSIS REPORT**

### Sample Rating Trend



**NORMAL** 



# WLLR\_U2120 WLLR\_U2120

Main Bulk Fluid Tank

**ROYAL PURPLE SYNFILM GT 32 (--- GAL)** 

#### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

#### Contamination

The water content is negligible. 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 INFORMATION   method   limit/base   current   history1   history2			Apr2020 Sep	2020 Mar2021 Sep202	21 Mar2022 Sep2022 Mar20	023 Sep2023	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age	Sample Number		Client Info		RP0029144	RP0020850	RP0020840
Dil Age	Sample Date		Client Info		28 Sep 2023	14 Jun 2023	22 Mar 2023
Oil Changed   Cilient Info	Machine Age	hrs	Client Info		0	0	0
NORMAL   NORMAL   NORMAL   NORMAL	Oil Age	hrs	Client Info		0	0	0
Iron	Oil Changed		Client Info		N/A	N/A	N/A
Iron	Sample Status				NORMAL	NORMAL	NORMAL
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m		<1	<1	<1
Titanium	Chromium	ppm	ASTM D5185m		0	0	0
Silver	Nickel	ppm	ASTM D5185m		0	0	0
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0
Lead         ppm         ASTM D5185m         0         <1	Silver	ppm	ASTM D5185m		0	0	<1
Copper	Aluminum	ppm	ASTM D5185m		5	0	<1
Tin         ppm         ASTM D5185m         0         <1	Lead	ppm	ASTM D5185m		0	<1	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         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	Copper	ppm	ASTM D5185m		0	<1	<1
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         0         0         <1	Tin	ppm	ASTM D5185m		0	<1	<1
Boron	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	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	Barium	ppm	ASTM D5185m		0	1	0
Magnesium         ppm         ASTM D5185m         80         76         77           Calcium         ppm         ASTM D5185m         0         2         2           Phosphorus         ppm         ASTM D5185m         6         4         0           Zinc         ppm         ASTM D5185m         0         3         2           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1         <1         0           Sodium         ppm         ASTM D5185m         <1         <1         1           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         0.022         0.024         0.030           ppm Water         ppm         ASTM D6304         221.0         241.7         304.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg K0Hg         ASTM D8045         0.38         0.40         0.213           VISUAL         method         limit	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium         ppm         ASTM D5185m         0         2         2           Phosphorus         ppm         ASTM D5185m         6         4         0           Zinc         ppm         ASTM D5185m         0         3         2           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1         <1         0           Sodium         ppm         ASTM D5185m         <1         <1         1           Potassium         ppm         ASTM D5185m         <20         0         <1         <1           Water         %         ASTM D6304         0.022         0.024         0.030           ppm Water         ppm         ASTM D6304         221.0         241.7         304.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         0.38         0.40         0.213           VISUAL         method         limit/base         current         history1         history2           White Metal	Manganese	ppm	ASTM D5185m		0	0	<1
Phosphorus         ppm         ASTM D5185m         6         4         0           Zinc         ppm         ASTM D5185m         0         3         2           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1         <1         0           Sodium         ppm         ASTM D5185m         <1         <1         1           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D5185m         <1         <1         <1         <1           Water         %         ASTM D5185m         <20         0         <1         <1           Water         %         ASTM D5185m         <20         0         <2         <1         <1         <1	Magnesium	ppm	ASTM D5185m		80	76	77
Zinc         ppm         ASTM D5185m         0         3         2           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1         <1         0           Sodium         ppm         ASTM D5185m         <1         <1         1           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         0.022         0.024         0.030           ppm Water         ppm         ASTM D6304         221.0         241.7         304.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.38         0.40         0.213           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal </th <th>Calcium</th> <th>ppm</th> <th>ASTM D5185m</th> <th></th> <th>0</th> <th>2</th> <th>2</th>	Calcium	ppm	ASTM D5185m		0	2	2
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         <1         <1         0           Sodium         ppm         ASTM D5185m         <1         <1         1           Potassium         ppm         ASTM D5185m         >20         0         <1         <1           Water         %         ASTM D6304         0.022         0.024         0.030           ppm Water         ppm         ASTM D6304         221.0         241.7         304.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         0.38         0.40         0.213           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE<	Phosphorus	ppm	ASTM D5185m		6	4	0
Silicon         ppm         ASTM D5185m         <1	Zinc	ppm	ASTM D5185m		0	3	2
Sodium         ppm         ASTM D5185m         <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 <1 <1 Water % ASTM D6304 0.022 0.024 0.030 ppm Water ppm ASTM D6304 221.0 241.7 304.2  FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.40 0.213  VISUAL method limit/base current history1 history2 White Metal scalar *Visual 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 Silt scalar *Visual NONE NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Silicon	ppm	ASTM D5185m		<1	<1	0
Water % ASTM D6304 0.022 0.024 0.030 ppm Water ppm ASTM D6304 221.0 241.7 304.2  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.40 0.213  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 NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Sodium	ppm	ASTM D5185m		<1	<1	1
ppm Water ppm ASTM D6304 221.0 241.7 304.2  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOHg ASTM D8045 0.38 0.40 0.213  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  Appearance scalar *Visual NONE NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML  NORML NORML	Potassium	ppm	ASTM D5185m	>20	0	<1	<1
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.40 0.213  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE 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 LIGHT LIGHT  Sand/Dirt scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML  NORML	Water	%	ASTM D6304		0.022	0.024	0.030
Acid Number (AN) mg KOH/g ASTM D8045 0.38 0.40 0.213  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	ppm Water	ppm	ASTM D6304		221.0	241.7	304.2
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 LIGHT LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML	FLUID DEGRADA	ATION	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 LIGHT LIGHT 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		0.38	0.40	0.213
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONELIGHTLIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML	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 LIGHT LIGHT Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML							
Silt scalar *Visual NONE NONE NONE NONE  Debris scalar *Visual NONE NONE LIGHT LIGHT  Sand/Dirt scalar *Visual NONE NONE NONE NONE  Appearance scalar *Visual NORML NORML NORML NORML  Odor scalar *Visual NORML NORML NORML NORML  NORML NORML	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Debrisscalar*VisualNONENONELIGHTLIGHTSand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORML		scalar					
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Silt	scalar		NONE	NONE		
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORML	Debris	scalar		NONE		LIGHT	LIGHT
Odor scalar *Visual NORML NORML NORML NORML		scalar	*Visual	NONE	NONE		NONE
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water scalar *Visual NEG NEG NEG	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	<b>Emulsified Water</b>	scalar	*Visual		NEG	NEG	NEG

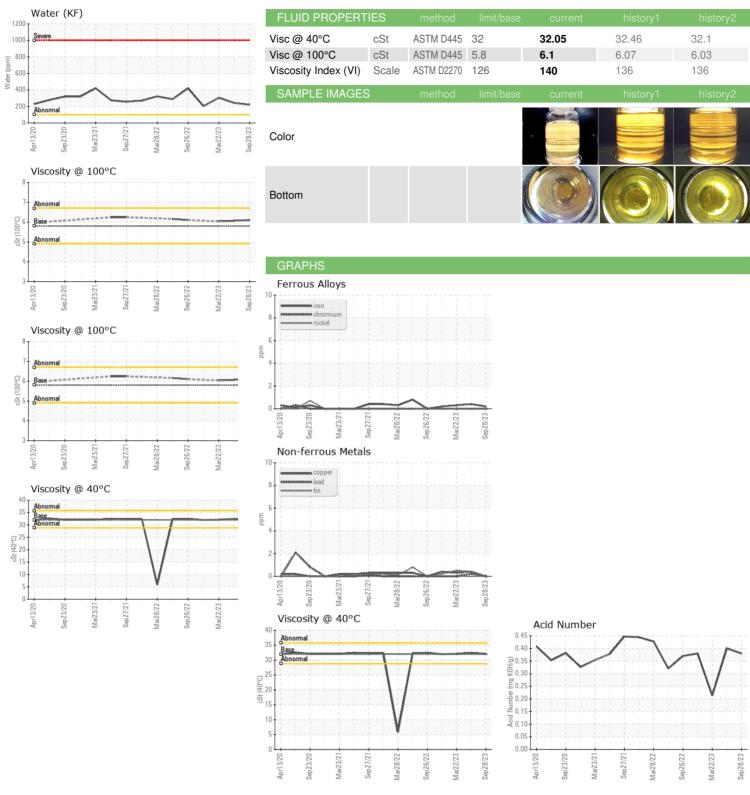
scalar \*Visual

Sulvine Ged By: EDDNE GIDDLE

NEG



## **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number Unique Number

: 05965823 : 10672374

: RP0029144

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

: 29 Sep 2023 Diagnosed

: 04 Oct 2023 Diagnostician : Jonathan Hester

Test Package : PLANT ( Additional Tests: KV100, VI ) 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.

**ENERGY TRANSFER - WILLARD** 

1309 SOUTH CONWELL ST WILLARD, OH

US 44890

Contact: EDDIE RIDDLE

Submitted By: EDDIE RIDDLE

T: (419)467-7972

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: