

OIL ANALYSIS REPORT

Sample Rating Trend



Area **PU** [PU] 71 Component Auxiliary Power Unit Fluid SKYDROL LD-4 (--- GAL)

DIAGNOSIS

Recommendation

The component was not specified so we have determined that this is a auxiliary power unit based on the fluid type in use. Please specify the correct component type on your next sample. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. (Customer Sample Comment: From the pump test port)

Wear

All component wear rates are normal.

Contamination

The water content is negligible. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the oil. The system and fluid cleanliness is acceptable.

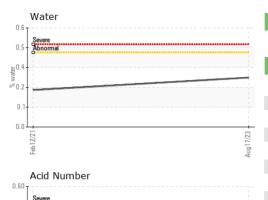
Fluid Condition

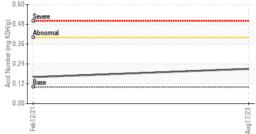
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

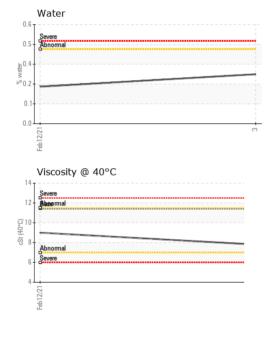
			Feb2021	Aug2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0741652	WC0493757	
Sample Date		Client Info		17 Aug 2023	12 Feb 2021	
Machine Age	hrs	Client Info		0	0	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		N/A	N/A	
Sample Status				NORMAL	NORMAL	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		3	3	
Chromium	ppm	ASTM D5185(m)		0	<1	
Nickel	ppm	ASTM D5185(m)		<1	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	<1	
Aluminum	ppm	ASTM D5185(m)		<1	<1	
Lead	ppm	ASTM D5185(m)		<1	0	
Copper	ppm	ASTM D5185(m)		4	3	
Tin	ppm	ASTM D5185(m)		<1	<1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		2	1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	4	1	
Barium	ppm	ASTM D5185(m)	0	0	<1	
Molybdenum	ppm	ASTM D5185(m)	0	0	0	
•						
Manganese	ppm	ASTM D5185(m)		0	0	
Manganese Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0	0 <1	0 <1	
•				-		
Magnesium	ppm	ASTM D5185(m)		<1	<1	
Magnesium Calcium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	0	<1 2	<1 1	
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000	<1 2 28630	<1 1 39220	
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0	<1 2 28630 35	<1 1 39220 20	
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0	<1 2 28630 35 1732	<1 1 39220 20 1755	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900	<1 2 28630 35 1732 <1	<1 1 39220 20 1755 <1	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900	<1 2 28630 35 1732 <1 current	<1 1 39220 20 1755 <1 history1	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	0 20000 0 1900	<1 2 28630 35 1732 <1 current <1	<1 1 39220 20 1755 <1 history1 <1	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900 limit/base	<1 2 28630 35 1732 <1 current <1 3	<1 1 39220 20 1755 <1 history1 <1 2	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900 limit/base >20	<1 2 28630 35 1732 <1 current <1 3 21	<1 1 39220 20 1755 <1 history1 <1 2 25	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900 limit/base >20 >20 >0.45	<1 2 28630 35 1732 <1 current <1 3 21 0.299	<1 1 39220 20 1755 <1 history1 <1 2 25 0.224	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185(m) ASTM D5304*	0 20000 0 1900 imit/base 20 >20 >0.45 >4500	<1 2 28630 35 1732 <1 current <1 3 21 0.299 2993.6	<1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4	 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm % ppm	ASTM D5185(m) ASTM D5304* ASTM D6304*	0 20000 0 1900 Imit/base >20 >0.45 >4500 Imit/base	<1 2 28630 35 1732 <1 current <1 3 21 0.299 2993.6 current	<1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4 history1	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles 5-15µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm % ppm \$ % ppm \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304*	0 20000 0 1900 imit/base >20 >0.45 >4500 imit/base >32000	<1 2 28630 35 1732 <1 current <1 3 21 0.299 2993.6 current 7647	<1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4 history1 24566	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles 5-15µm Particles 15-25µm Particles 25-50µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm % ppm k ESS count count	ASTM D5185(m) ASTM D5185(m) <td< td=""><td>0 20000 0 1900 imit/base >20 >0.45 >4500 imit/base >32000 >5700</td><th><1 2 28630 35 1732 <1</th><td><1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4 2244.4 history1 24566 1544 547</td><td> history2 history2 history2</td></td<>	0 20000 0 1900 imit/base >20 >0.45 >4500 imit/base >32000 >5700	<1 2 28630 35 1732 <1	<1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4 2244.4 history1 24566 1544 547	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water Ppm Water FLUID CLEANLIN Particles 5-15µm Particles 15-25µm Particles 25-50µm Particles 50-100µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm % ppm kESS count	ASTM D5185(m) ASTM D5304* ASTM D6304* ASTM D6304* <t< th=""><th>0 20000 0 1900 imit/base >20 >0.45 >4500 imit/base >32000 >5700 >1012</th><th><1 2 28630 35 1732 <1 current <1 3 21 0.299 2993.6 current 7647 853</th><th><1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4 history1 24566 1544</th><th> history2 history2 history2</th></t<>	0 20000 0 1900 imit/base >20 >0.45 >4500 imit/base >32000 >5700 >1012	<1 2 28630 35 1732 <1 current <1 3 21 0.299 2993.6 current 7647 853	<1 1 39220 20 1755 <1 history1 <1 2 25 0.224 2244.4 history1 24566 1544	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles 5-15µm Particles 15-25µm Particles 25-50µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) <td< td=""><td>0 20000 0 1900 Imit/base >20 >0.45 >4500 Imit/base >32000 >5700 >1012 >180 >32</td><th><1 2 28630 35 1732 <1 Current <1 3 21 0.299 2993.6 Current 7647 853 440 34</th><td><1 1 39220 20 1755 <1 history1 <1 25 0.224 2244.4 2244.4 history1 24566 1544 547 35</td><td> history2 history2 history2 history2</td></td<>	0 20000 0 1900 Imit/base >20 >0.45 >4500 Imit/base >32000 >5700 >1012 >180 >32	<1 2 28630 35 1732 <1 Current <1 3 21 0.299 2993.6 Current 7647 853 440 34	<1 1 39220 20 1755 <1 history1 <1 25 0.224 2244.4 2244.4 history1 24566 1544 547 35	 history2 history2 history2 history2



OIL ANALYSIS REPORT







Acid Number (AN) VISUAL		method				history
VISUAL	mg KOH/g	ASTM D974*	0.10	0.21	0.16	
		method	limit/base	current	history1	history
White Metal	scalar	Visual*	NONE	NONE	NONE	
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
Precipitate	scalar	Visual*	NONE	NONE	NONE	
Silt		Visual*	NONE	NONE	NONE	
Debris Sand/Dirt	scalar scalar	Visual* Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.45	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPER	TIES	method	limit/base	current	history1	history
Visc @ 40°C	cSt	ASTM D7279(m)	11.42	7.8	9.0	
SAMPLE IMAGE	S	method	limit/base	current	history1	history
SAMPLE IMAGE						no image
Bottom						no image
GRAPHS						
Ferrous Alloys				Deutiele Course		
			1.024.00	Particle Count		
¹⁰ iron			1,024,00 512,00	¹⁰ T		
¹⁰ T			512,00 256,00	10 10 10		
10 iron			512,00 256,00 128,00			
E 5			512,00 256,00 128,00	10 10 10		
b b b b b b b c b c b c b c c c c c c c			512,00 256,00 128,00	10 10 10 10 10 4 bnormal 10		
E 5	ls		512,00 256,00 128,00	10 10 10 10 10 10 10 10 10 10		
Non-ferrous Meta	ls		512,00 256,00 128,00 EEC/L[Diny EEC/L[Diny EEC/L[Diny EEC/L] EEC/L[Diny EEC/L] EEC/L[Diny EEC/L] EEC	00 10 10 10 10 10 10 10 10 10 10		
Non-ferrous Meta	ls		512,00 256,00 128,00 128,00 00,00 22,00 22,00 22,00 22,00 22,00 20,000 20,0000 20,0000 20,00000000	00 00 00 00 00 00 00 00 00 00 00 00 00		
Non-ferrous Meta	ls		512,00 256,00 128,00 64,00 52/L[bmy 8,00 90,000 90,0000 90,000 90,0000 90,0000 90,0000 90,0000 90,0000 90,0000 90,0000 90,0000 90,00000000	00 00 00 00 00 00 00 00 00 00		
Non-ferrous Meta	ls		512,00 256,00 128,00 64,00 52/L[bmy 8,00 90,000 90,0000 90,000 90,0000 90,0000 90,0000 90,0000 90,0000 90,0000 90,0000 90,0000 90,00000000	00 00 00 00 00 00 00 00 00 00		3- 5- 7- 5- 5- 5- 5- 1- 1- 1- 5- 5- 5- 5- 5- 5- 5- 5- 5- 5- 5- 5- 5-
Non-ferrous Meta	ls		512,00 256,00 128,00 128,00 0 0 32,00 16,00 16,00 16,00 16,00 16,00 10,000 10,0000 10,00000000	00 00 00 00 00 00 00 00 00 00	•	
Non-ferrous Meta	ls		512,00 256,00 128,00 64,00 80,00 128,00 128,00 128,00 128,00 10,00 128,00 10,000 10,00000000	00 00 00 00 00 00 00 00 00 00		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Non-ferrous Meta	ls		512,00 256,00 128,00 64,00 80,00 128,00 128,00 128,00 128,00 10,00 128,00 10,000 10,00000000	00 00 00 00 00 00 00 00 00 00		
Non-ferrous Meta	ls		512,00 256,00 128,00 64,00 80,00 128,00 128,00 128,00 128,00 10,00 128,00 10,000 10,00000000	Abnormal Abnormal 0 0 0 0 0 0 0 0 0 0 0 0 0		
Non-ferrous Meta	ls		512,00 256,00 128,00 64,00 80,00 128,00 128,00 128,00 128,00 10,00 128,00 10,000 10,00000000	Abnormal Abnormal 0 0 0 0 0 0 0 0 0 0 0 0 0		
Non-ferrous Meta	ls		512,00 256,00 128,00 128,00 0 0 32,00 16,00 16,00 16,00 16,00 16,00 10,000 10,0000 10,00000000	Abnormal Abnormal 0 0 0 0 0 0 0 0 0 0 0 0 0		

Test Package : IND 2 (Additional Tests: PrtCountNAS) To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Report Id: SAFAJA [WCAMIS] 02576979 (Generated: 08/23/2023 07:55:10) Rev: 1

CALA

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> Submitted By: Rob Zane Page 2 of 2

rob.zane@safrangroup.com

Contact: Rob Zane

F: (905)683-6983

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