

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Area **RO** Machine Id **DEC 9195** Component Hydraulic System Fluid SKYDROL LD-4 (--- GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

## Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. 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.

SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0926857	WC0920420	
Sample Date		Client Info		03 Apr 2024	12 Mar 2024	
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)	>20	<1	<1	
Chromium	ppm	ASTM D5185(m)	>20	0	0	
Nickel	ppm	ASTM D5185(m)	>20	0	<1	
Titanium	ppm	ASTM D5185(m)		0	0	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>20	0	<1	
Lead	ppm	ASTM D5185(m)	>20	0	0	
Copper	ppm	ASTM D5185(m)	>20	<1	<1	
Tin	ppm	ASTM D5185(m)	>20	0	0	
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)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	1	<1	
Barium	ppm	ASTM D5185(m)	0	<1	0	
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	
0				-		
Magnesium Calcium	ppm	ASTM D5185(m)		<1	<1	
Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0	<1 19	<1 19	
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000	<1 19 41585	<1 19 39974	
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0	<1 19 41585 4	<1 19 39974 4	
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0	<1 19 41585 4 1523	<1 19 39974 4 1654	
Magnesium Calcium Phosphorus Zinc Sulfur Lithium	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 limit/base	<1 19 41585 4 1523 <1	<1 19 39974 4 1654 <1	  
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	0 20000 0 1900 limit/base >15	<1 19 41585 4 1523 <1 current	<1 19 39974 4 1654 <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) ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900 limit/base >15	<1 19 41585 4 1523 <1 current 0	<1 19 39974 4 1654 <1 history1 <1	  
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) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	0 20000 0 1900 limit/base >15	<1 19 41585 4 1523 <1 current 0 3	<1 19 39974 4 1654 <1 <b>history1</b> <1 2	  
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 <b>limit/base</b> >15 >20	<1 19 41585 4 1523 <1 current 0 3 19	<1 19 39974 4 1654 <1 <b>history1</b> <1 2 19	    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) ASTM D5304*	0 20000 0 1900 <b>limit/base</b> >15 >20 >0.6	<1 19 41585 4 1523 <1 current 0 3 19 0.363	<1 19 39974 4 1654 <1 <b>history1</b> <1 2 19 0.336	   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 D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5304* ASTM D6304*	0 20000 0 1900 <b>limit/base</b> >15 >20 >0.6 >6000	<1 19 41585 4 1523 <1 <u>current</u> 0 3 19 0.363 3635	<1 19 39974 4 1654 <1 <b>history1</b> <1 2 19 0.336 3367	    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 D6304* ASTM D6304*	0 20000 0 1900 <b>Imit/base</b> >15 >20 >0.6 >6000 <b>Imit/base</b>	<1 19 41585 4 1523 <1 <ul> <li>&lt;1</li> <li>current</li> </ul> <li>0 3 19 0.363 3635 <ul> <li>current</li> </ul></li>	<1 19 39974 4 1654 <1 10 10 10 10 10 10 10 10 10 10 10 10 10	    history2     history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm	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 >15 >20 >0.6 >6000 imit/base >5000	<1 19 41585 4 1523 <1 <ul> <li>&lt;1</li> <li>current</li> </ul> <li>0 3 19 0.363 3635 <ul> <li>current</li> </ul> </li> <li>591</li>	<1 19 39974 4 1654 <1 1654 <1 1654 <1 10 10 10 10 10 10 10 10 10 10 10 10 10	    history2     history2 
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	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 D5304" ASTM D6304" ASTM D6304 ASTM D76477 ASTM D7647	0 20000 0 1900 <b>imit/base</b> >15 >20 >0.6 >6000 <b>imit/base</b> >5000 >1300 >160	<1 19 41585 4 1523 <1	<1 19 39974 4 1654 <1 1654 <1 1654 <1 10 10 10 10 10 10 10 10 10 10 10 10 10	    history2    history2  history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304* ASTM D7647 ASTM D7647 ASTM D7647	0 20000 0 1900 <b>imit/base</b> >15 >20 >0.6 >6000 <b>imit/base</b> >5000 >1300 >160	<1 19 41585 4 1523 <1 Current 0 3 19 0.363 3635 Current 591 88 13	<1 19 39974 4 1654 <1 1654 <1 1654 <1 10 10 10 10 10 10 10 10 10 10 10 10 10	   history2     history2
Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm %	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	0 20000 0 1900 <b>Imit/base</b> >15 >20 >0.6 >6000 <b>Imit/base</b> >5000 >1300 >160 >40	<1 19 41585 4 1523 <1 Current 0 3 19 0.363 3635 Current 591 88 13 5	<1 19 39974 4 1654 <1 1654 <1 1654 <1 10 10 10 10 10 10 10 10 10 10 10 10 10	    history2    history2  history2



# **OIL ANALYSIS REPORT**

Water (KF)	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
2000 - Severe	Acid Number (AN)	mg KOH/g	ASTM D974*	0.10	0.03	0.03	
0000 - 8000 -	VISUAL		method	limit/base	current	history1	history2
5000 - Abnormal	White Metal	scalar	Visual*	NONE	NONE	NONE	
4000 -	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
2000	Precipitate	scalar	Visual*	NONE	NONE	NONE	
ar12/24 +	Silt	scalar	Visual*	NONE	NONE	NONE	
Mari 2/24	Debris	scalar	Visual*	NONE	NONE	NONE	
Dauticla Transf	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Particle Trend	Appearance	scalar	Visual*	NORML	NORML	NORML	
$f = 5k - \frac{\mu_{\mu\nu}}{\mu_{\mu\nu}} \frac{\mu_{\mu\nu}}{\mu_{\mu\nu}}$	Odor	scalar	Visual*	NORML	NORML	NORML	
g g4k <sup>2</sup> g3kk <sup>2</sup> g3k <sup>2</sup> g3	Emulsified Water	scalar	Visual*	>0.6	NEG	NEG	
	Free Water	scalar	Visual*		NEG	NEG	
5 22 +	FLUID PROPERT	TIES	method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D7279(m)	11.42	10.0	10.0	
Mar12/24	SAMPLE IMAGE	S	method	limit/base	current	history1	history2
≥ Water (KF) 2000 Severe	Color						no image
0000 - Abnormal	Bottom						no image
000	GRAPHS						
Мат 2/2 гам Р. с. т. к	Ferrous Alloys			401.52	Particle Count	t	20
N. v	10 iron			491,52			1 <sup>26</sup>
Viscosity @ 40°C	E 5-			122,88	0 - Severe		-24
Severe				30,72	0		-22
				호 후 7,68	0 Abnormal		-20 8
510- 3 8- 1	Mar12/2			Apr3/24	0+	<b>.</b>	-20 ISO 4406 -18 0.1999 Clas -16 Clas
Alexand	≥ Non-ferrous Meta	c		barticles (			16
Abnormal 6 - Severe	<sup>10</sup> T	5		5		•	leanli
	copper			under 12			-14 ness C
2/24	E. 5 tin			10 10	0-	$\sim$	-12 ရှိ
hccл					8 -		-10
Particle Trend	2/24 L0			3/24	2-		
	Mar12			Apr3/24	0		6
5k - Hum - 4/m	Viscosity @ 40°C				<sup>4</sup> نه 6ن Acid Number	14µ 21µ	38µ 71µ
4k	14 12 Barrier						
3k -	다 2 + Brace 				0 - Severe Abnormal		
4k           3k           2k           1b	ts 8 Abnormal Severe			1.0 	0 - Abnormal		
1k				Acid Nu	Base		
0k	2/24			Apr3/24	2/24		Apr3/24 -
Mari 2/2 have	Mar12/24			Apı	Mar12/24		Apr
To discuss this sample report,	: 5759959 : IND 2 ( Additional Tes	Recei Teste Diagr sts: KF, T ice at 1-8	ived : 04 id : 05 nosed : 05 AN Man ) 800-268-213	Apr 2024 5 Apr 2024 5 Apr 2024 - V 1.	Ves Davis	57	ding Systems 4 Monarch Ave Ajax, ON CA L1S 2G8 ct: Stuart Potter frangroup.com T:

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Contact/Location: Stuart Potter - SAFAJA2 Page 2 of 2