

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

POWER PACK #7 LINE #2 (CLINCH) Component

Hydraulic System AW HYDRAULIC OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

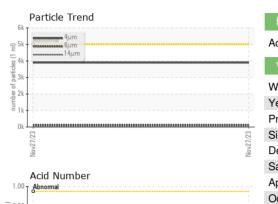
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

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				ov2023		
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0782176		
Sample Date		Client Info		27 Nov 2023		
Aachine Age	hrs	Client Info		0		
Dil Age	hrs	Client Info		0		
Dil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	N	method	limit/base	current	history1	history2
Vater		WC Method	>0.05	NEG		
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>20	6		
Chromium	ppm	ASTM D5185(m)	>20	0		
lickel	ppm	ASTM D5185(m)	>20	5		
ītanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		<1		
Aluminum	ppm	ASTM D5185(m)	>20	<1		
ead	ppm	ASTM D5185(m)	>20	6		
Copper	ppm	ASTM D5185(m)	>20	19		
īn	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
/anadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<1		
Barium	ppm	ASTM D5185(m)	5	<1		
Nolybdenum	ppm	ASTM D5185(m)	5	0		
langanese	ppm	ASTM D5185(m)		0		
/lagnesium	ppm	ASTM D5185(m)	25	<1		
-	ppm ppm	ASTM D5185(m) ASTM D5185(m)	25 200	<1 38		
Calcium	ppm	. ,				
Magnesium Calcium Phosphorus Zinc		ASTM D5185(m)	200	38		
Calcium Phosphorus Zinc	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	200 300	38 250		
Calcium Phosphorus	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 300 370	38 250 320		
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 300 370	38 250 320 3107		
Calcium Phosphorus Zinc Sulfur .ithium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	200 300 370 2500	38 250 320 3107 <1	 	
Calcium Phosphorus Zinc Sulfur .ithium CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method	200 300 370 2500 limit/base	38 250 320 3107 <1 current	 history1	 history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	200 300 370 2500 limit/base	38 250 320 3107 <1 <u>current</u> <1	 history1 	 history2
Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	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)	200 300 370 2500 limit/base >15	38 250 320 3107 <1 <u>current</u> <1 1	 history1 	 history2
Calcium Phosphorus Cinc Sulfur ithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	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)	200 300 370 2500 limit/base >15 >20	38 250 320 3107 <1 <u>current</u> <1 1 0	 history1 	 history2
Calcium Phosphorus Zinc Sulfur .ithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	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 D5185(m)	200 300 370 2500 Iimit/base >15 >20 Iimit/base >5000	38 250 320 3107 <1 current <1 1 0 current	 history1 history1	 history2
Calcium Phosphorus Zinc Sulfur .ithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	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 D5185(m)	200 300 370 2500 Iimit/base >15 >20 Iimit/base >5000	38 250 320 3107 <1 current <1 1 0 current 3895	 history1 history1 	 history2 history2
Calcium Phosphorus Zinc Sulfur .ithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	38 250 320 3107 <1 current <1 1 0 current 3895 107	 history1 history1 history1	 history2 history2
Calcium Phosphorus Zinc Sulfur ithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4μm Particles >6μm Particles >14μm Particles >21μm	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 D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	38 250 320 3107 <1 current 1 0 current 3895 107 6	 history1 history1 history1	 history2 history2
Calcium Phosphorus Zinc Sulfur .ithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	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 D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	38 250 320 3107 <1 current current 3895 107 6 3	 history1 history1 	 history2 history2

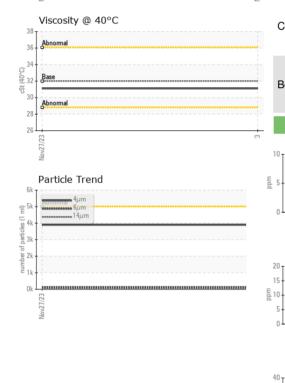
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OIL ANALYSIS REPORT







Acid Number (AN)	TION	method	limit/base	current	history1	history
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.44		
VISUAL		method	limit/base	current	history1	history
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt		Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor		Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.05	NEG		
Free Water		Visual*		NEG		
FLUID PROPERT		method	limit/base	current	history1	history
Visc @ 40°C	cSt	ASTM D7279(m)	32	31.1		
SAMPLE IMAGES	5	method	limit/base	current	history1	histor
Color					no image	no image
Bottom					no image	no image
GRAPHS Ferrous Alloys				Particle Count		
¹⁰			491,520			
iron chromium			122,880			
E 5-			30,720	Severe		
		******	7 680	Abnormal		
0			Nov27/23 (per 1 ml			
0 Uav27/23			020, 1.920 Nov2		•	
Non-ferrous Metal	s		Voo Noo Noo Noo Noo Noo Noo Noo Noo Noo			
Non-ferrous Metal	S		aportuned. 480			
Non-ferrous Metals	s					
Non-ferrous Metal:	S		120 120 30			
Non-ferrous Metals	S		30 30			
Non-ferrous Metals	S		30 30			
Non-ferrous Metal	s		30 30 30	μ 6μ	14μ 21μ	38µ 7
Non-ferrous Metals	s		120 30 8 8 8 8 8 8 8 8 8 8 8 8 9 8 9 9 9 9 9	Acid Number	14μ 21μ	38μ 7
Non-ferrous Metal	s		120 30 8 8 8 8 8 8 8 8 8 8 8 8 9 8 9 9 9 9 9	μ 6μ	14μ 21μ	38µ 7
Non-ferrous Metal:	5		120 30 8 8 8 8 8 8 8 8 8 8 8 8 9 8 9 9 9 9 9	Acid Number	14μ 21μ	38µ 7
Non-ferrous Metal	S		120 30 8 8 8 8 8 8 8 8 8 8 8 8 9 8 9 9 9 9 9	Acid Number	14μ 21μ	38µ 7
Non-ferrous Metal	S		120 30 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Acid Number Aboomal Base	14μ 21μ	38µ 7
Non-ferrous Metal	S		120 30 8 8 8 8 8 8 8 8 8 8 8 8 9 8 9 9 9 9 9	Acid Number	14μ 21μ	38μ 7

Test Package : IND 2 (Additional Tests: TAN Man) 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.

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CALA

ISO 17025:2017 Accredited Laboratory

Contact/Location: Nigel Layton - CLESPR

F:

Contact: Nigel Layton

T: (647)332-7867

nigel@clevelandhydraulics.ca