

OIL ANALYSIS REPORT

59-T-7363 SDS HYDRAULIC TANK (S/N Maint Plan 22467) Component

Hydraulic Power Pack 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

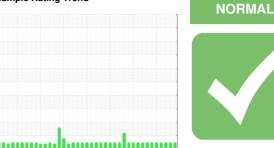
All component wear rates are normal.

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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Sample Rating Trend

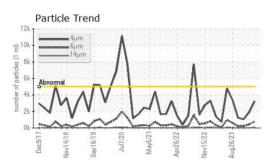
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		PP	PP	PP	
Sample Date		Client Info		16 Nov 2023	31 Oct 2023	31 Oct 2023	
Machine Age	hrs	Client Info		0	0	0	
Oil Age	hrs	Client Info		0	0	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2	
Water		WC Method	>0.05	NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	2	2	2	
Chromium	ppm	ASTM D5185(m)	>20	0	0	0	
Nickel	ppm	ASTM D5185(m)	>20	<1	<1	0	
Titanium	ppm	ASTM D5185(m)		0	0	0	
Silver	ppm	ASTM D5185(m)		0	<1	<1	
Aluminum	ppm	ASTM D5185(m)		<1	0	0	
Lead	ppm	ASTM D5185(m)	>20	<1	2	<1	
Copper	ppm	ASTM D5185(m)	>20	2	2	2	
Tin	ppm	ASTM D5185(m)	>20	0	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	0	
ADDITIVES							
ADDITIVE5		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	5	2	2	2	
Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5	2 0	2 <1	2 <1	
Boron Barium Molybdenum		ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5	2 0 0	2 <1 0	2 <1 0	
Boron Barium Molybdenum Manganese	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	2 0 0 0	2 <1 0 0	2 <1 0 0	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25	2 0 0 0 2	2 <1 0 0 1	2 <1 0 0 2	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200	2 0 0 2 102	2 <1 0 0 1 100	2 <1 0 0 2 99	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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)	5 5 5 25 200 300	2 0 0 2 102 494	2 <1 0 1 100 501	2 <1 0 2 99 499	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	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)	5 5 5 25 200 300 370	2 0 0 2 102 494 314	2 <1 0 1 100 501 321	2 <1 0 2 99 499 322	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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)	5 5 5 25 200 300	2 0 0 2 102 494 314 2850	2 <1 0 1 100 501 321 2719	2 <1 0 2 99 499 322 2717	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	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)	5 5 25 200 300 370 2500	2 0 0 2 102 494 314	2 <1 0 1 100 501 321 2719 <1	2 <1 0 2 99 499 322	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	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)	5 5 5 25 200 300 370 2500 limit/base	2 0 0 2 102 494 314 2850 <1 current	2 <1 0 0 1 100 501 321 2719 <1 history1	2 <1 0 2 99 499 322 2717 <1 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	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 D5185(m)	5 5 25 200 300 370 2500	2 0 0 2 102 494 314 2850 <1 current 2	2 <1 0 0 1 100 501 321 2719 <1 history1 2	2 <1 0 2 99 499 322 2717 <1 history2 2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6	2 <1 0 1 100 501 321 2719 <1 history1 2 6	2 <1 0 2 99 499 322 2717 <1 history2 2 6	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15	2 0 0 2 102 494 314 2850 <1 current 2	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0	2 <1 0 0 2 99 499 322 2717 <1 history2 2 6 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >20	2 0 0 2 102 494 314 2850 <1 current 2 6 3 2 6 3	2 <1 0 1 100 501 321 2719 <1 history1 2 6 0 0 history1	2 <1 0 2 99 499 322 2717 <1 history2 2 6 0 0 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 25 000 300 370 2500 100 15 >15 >20 100 100 100 100 100 100 100 100 100 1	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 3 <i>current</i> 3228	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 0 history1 1052	2 <1 0 2 99 499 322 2717 <1 history2 2 6 0 0 history2 1897	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 300 370 2500 2500 1 imit/base >20 1 imit/base >20	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 <i>current</i> 3228 781	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 0 history1 1052 234	2 <1 0 0 2 99 499 322 2717 <1 history2 2 6 0 history2 1897 432	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D76477 ASTM D7647	5 5 5 200 300 370 2500 2500 limit/base >20 limit/base >5000 >1300 >1300	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 <i>current</i> 3228 781 46	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 history1 1052 234 18	2 <1 0 0 2 99 499 322 2717 <1 bistory2 2 6 0 0 bistory2 1897 432 22	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 limit/base >15 >20 limit/base >5000 >1300 >1300 >160 >40	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 2 6 3 <i>current</i> 3228 781 46 9	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 history1 1052 234 18 4	2 <1 0 0 2 99 499 322 2717 <1 *1 history2 2 6 0 0 history2 1897 432 22 5 5	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 <i>current</i> 3228 781 46 9 0	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 history1 1052 234 18 4 1	2 <1 0 0 2 99 499 322 2717 <1 history2 2 6 0 0 history2 1897 432 22 5 5 1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >4µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 imit/base >15 >20 imit/base >5000 >1300 >160 >1300 >160 >10	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 <i>current</i> 3228 781 46 9 0 0	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 history1 1052 234 18 4 1 8 4 1 0	2 <1 0 0 2 99 499 322 2717 <1 history2 2 6 0 history2 1897 432 22 5 1 1 1 1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	2 0 0 2 102 494 314 2850 <1 <i>current</i> 2 6 3 <i>current</i> 3228 781 46 9 0	2 <1 0 0 1 100 501 321 2719 <1 history1 2 6 0 history1 1052 234 18 4 1	2 <1 0 0 2 99 499 322 2717 <1 * * * * * * * * * * * * * * * * * *	

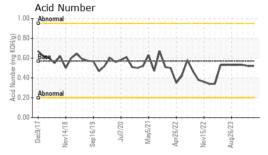


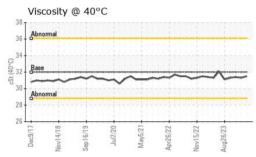
OIL ANALYSIS REPORT

Color

Bottom

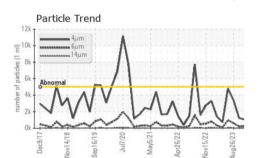






FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.52	0.52	0.53
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	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
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	31.5	31.3	31.4
SAMPLE IMAGES		method	limit/base	current	history1	history2
					Contraction of the	





Ferrous Alloys							Particle Count								
	in ch	on nromium						122,880							
5-	ni	ckel						30,720	re						
) 1/6	4/18	6/19	Jul7/20	May5/21	6/22	5/22	6/23	- E 7,680 Abn	ormal	S.,					
Dec9/1	Nov14/18	Sep 16/19	յոլ	May	Apr26/22	Nov15/22	Aug26/23	T,680 Abno (1997) (1997			••••••				
	n-ferr	ous M	letals							1.					
		opper						120- 120- 120-		1					
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Base Abno	ormal							y Bun)					<u> </u>		-
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54	18	13	20	21	22	22	23	Acid Number (mg K0H/g) Acid Number (mg K0H/g) Acid Number (mg K0H/g)	10	19	20	21	22	22 -	23
Dec9/17	Nov14/18	Sep 16/19	Jul7/20	May5/21	Apr26/22	Nov15/22	Aug26/23 -	A. Dec9/1	Nov14/18	Sep 16/19 -	Jul7/20	May5/21	Apr26/22	Nov15/22	Aug26/23.
						-	4		~					~	A

Lab Number ISO 17025:2017 : 02605907 Diagnosed : 03 Jan 2024 ST. JOHN`S, NL Accredited Laboratory Unique Number : 5706993 Diagnostician : Kevin Marson CA A1C 6C9 Test Package : IND 2 Contact: Maintenance Supervisor To discuss this sample report, contact Customer Service at 1-800-268-2131. maintsuper.searose@huskyenergy.ca 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.

Laboratory

Sample No.

CALA

Report Id: SPESTJ [WCAMIS] 02605907 (Generated: 01/03/2024 12:46:04) Rev: 1

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