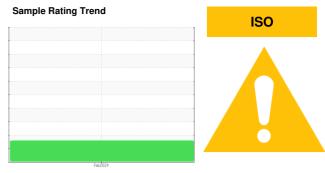


OIL ANALYSIS REPORT

[13966599] MPG B HYDRAULIC START F-71204

Hydraulic System

{not provided} (--- 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. We recommend you service the filters on this component. We recommend an early resample to monitor this condition. 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

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

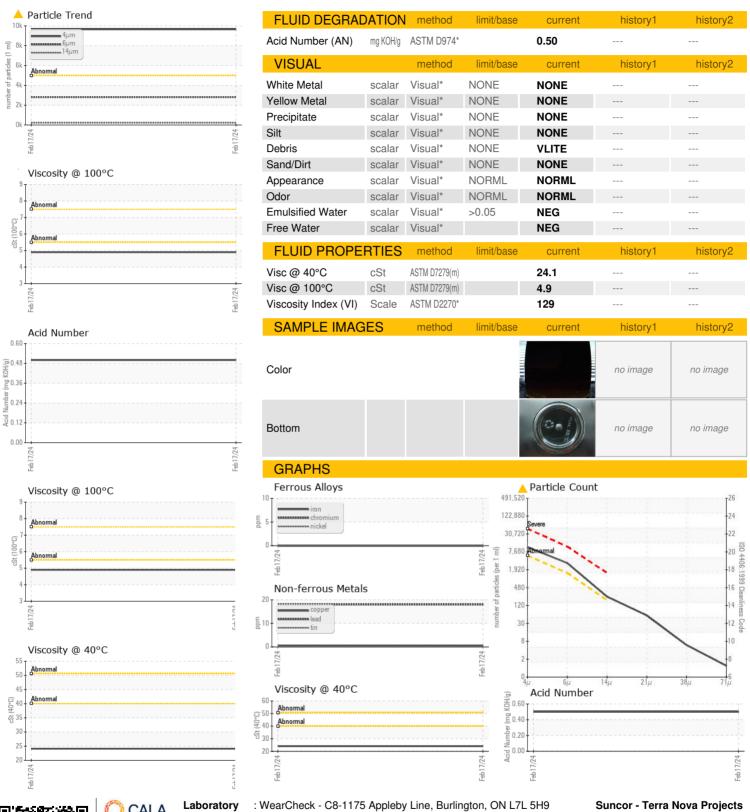
Fluid Condition

Viscosity of sample indicates oil is within ISO 22 range, advise investigate. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC		
Sample Date		Client Info		17 Feb 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				ABNORMAL		
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0		
Chromium	ppm	ASTM D5185(m)	>10	0		
Nickel	ppm	ASTM D5185(m)	>10	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>10	0		
Lead	ppm	ASTM D5185(m)	>20	18		
Copper	ppm	ASTM D5185(m)	>20	<1		
Tin	ppm	ASTM D5185(m)	>10	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current	history1	history2
	ppm ppm		limit/base			history2
Boron	• •	ASTM D5185(m)	limit/base	<1		history2
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0		history2
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0 0		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0 0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0 0 0 0 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 0 0 0 0 <1 14		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 0 0 0 0 <1 14 61		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 0 0 0 0 <1 14 61		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 0 0 0 0 <1 14 61 54 1794		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		<1 0 0 0 <1 14 61 54 1794		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	<1 0 0 0 <1 14 61 54 1794 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) MASTM D5185(m) MASTM D5185(m)	limit/base >15	<1 0 0 0 <1 14 61 54 1794 <1 current		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm	ASTM D5185(m)	limit/base >15	<1 0 0 0 <1 14 61 54 1794 <1 current 0		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185(m)	limit/base >15 >20	<1 0 0 0 <1 14 61 54 1794 <1 current 0 1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL	ppm	ASTM D5185(m) METHOD ASTM D5185(m)	limit/base >15 >20 limit/base	<1 0 0 0 0 <1 14 61 54 1794 <1 current 0 1 2		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm	ASTM D5185(m) METHOD METHOD MASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base >5000	<1 0 0 0 <1 14 61 54 1794 <1 current 0 1 2 current	history1 history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm	ASTM D5185(m) method 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)	limit/base >15 >20 limit/base >5000 >1300	<1 0 0 0 1 14 61 54 1794 <1 current 0 1 2 current 9651 2813	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles > 4µm Particles > 14µm	ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160	<1 0 0 0 1 14 61 54 1794 <1 current 0 1 2 current ● 9651 ▲ 2813 ● 210		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium Particles >4µm Particles >14µm Particles >21µm	ppm	ASTM D5185(m) METHOD ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40	<1 0 0 0 1 14 61 54 1794 <1 current 0 1 2 current 9651 2813 210 49	history1 history1	history2 history2



OIL ANALYSIS REPORT





ISO 17025:2017 Accredited

Laboratory

Laboratory Sample No. Lab Number

e No. : PC

Lab Number : 02625688 **Unique Number** : 5750807

PC Received : 01 Apr 2024
02625688 Tested : 02 Apr 2024
05750807 Diagnosed : 02 Apr 2024 - Kevin Marson

Test Package: MAR 2 (Additional Tests: KV100, VI)

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.

Suncor - Terra Nova Projects Scotia Centre, 235 Water Strret

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F: (709)724-2835