

OIL ANALYSIS REPORT

NO UNIT PC0072089

Component

New (Unused) Oil

NOT GIVEN (--- GAL)

Sample Rating Trend **NORMAL**

DIAGNOSIS

Recommendation

This is the baseline readout on this new (unused) oil. The fluid is suitable for service. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

{not applicable}

Contamination

There is no indication of any contamination in the new (unused) oil.

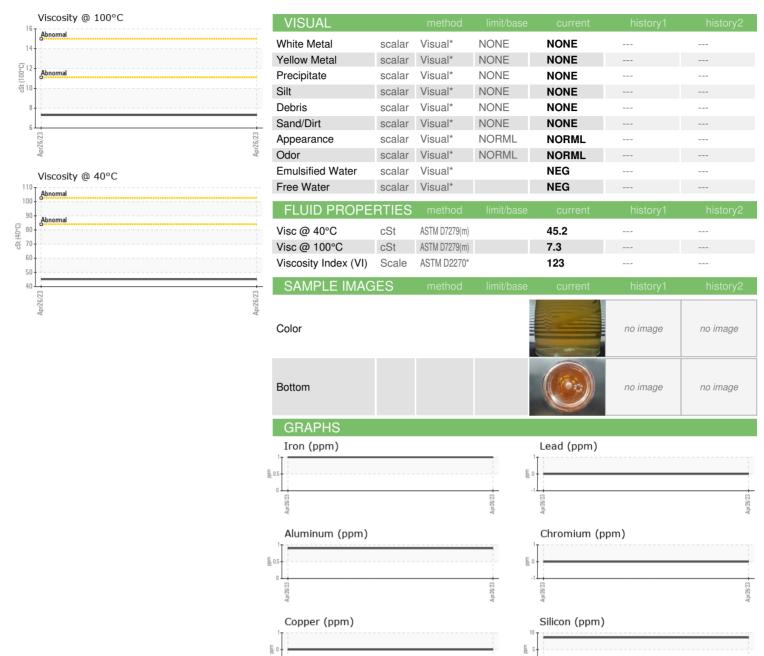
Fluid Condition

Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is suitable for service.

				Apr2023		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PC0072089		
Sample Date		Client Info		26 Apr 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		1		
Chromium	ppm	ASTM D5185(m)		0		
Nickel	ppm	ASTM D5185(m)		0		
Titanium	ppm	ASTM D5185(m)		<1		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)		<1		
Lead	ppm	ASTM D5185(m)		0		
Copper	ppm	ASTM D5185(m)		0		
Tin	ppm	ASTM D5185(m)		0		
Antimony	ppm	ASTM D5185(m)		<1		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	ourrant.	المرس ما ما ما	history2
ADDITIVES		memou	IIIIII/Dase	current	history1	HISTOLYZ
Boron	ppm	ASTM D5185(m)	IIIIII/Dase	6	nistory i	
	ppm		IIIIIVDase		•	
Boron	• • • • • • • • • • • • • • • • • • • •	ASTM D5185(m)	IIIIII/Dase	6	•	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	IIIIII/Dase	6 0		
Boron Barium Molybdenum	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	IIIIII/Dase	6 0 2		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	IIIIII/Dase	6 0 2 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	IIIIII/Dase	6 0 2 0 27		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	IIIIIIVoase	6 0 2 0 27 3390		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	IIIIIIVUASE	6 0 2 0 27 3390 940		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	IIIIIIVUASE	6 0 2 0 27 3390 940 1080		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	6 0 2 0 27 3390 940 1080 3240		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		6 0 2 0 27 3390 940 1080 3240		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)		6 0 2 0 27 3390 940 1080 3240 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)		6 0 2 0 27 3390 940 1080 3240 <1 current		history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	6 0 2 0 27 3390 940 1080 3240 <1 current 9 <1	history1	history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	6 0 2 0 27 3390 940 1080 3240 <1 current 9 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m)	limit/base	6 0 2 0 27 3390 940 1080 3240 <1 current 9 <1 <1 current		history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	6 0 2 0 27 3390 940 1080 3240 <1 current 9 <1 <1 current	history1 history1	history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D7844* ASTM D7624* ASTM D7624*	limit/base	6 0 2 0 27 3390 940 1080 3240 <1 current 9 <1 current 0 3.0	history1 history1	history2 history2



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CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No. Lab Number **Unique Number**

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Petro-Canada Technical/Yen Garcia

: PC0072089

: 02554388

Viscosity @ 40°C

Received Diagnosed

: 01 May 2023 : 03 May 2023 Diagnostician : Kevin Marson Test Package : MOB 1 (Additional Tests: FT-IR, ICP-NewOil, KV100, VI)

Additives

Mississauga, ON CA L5J 1K2 Contact: Yen Garcia yen.garcia@hfsinclair.com

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.

: 5567403

T: F: (905)403-6740

Validity of results and interpretation are based on the sample and information as supplied.