

PROBLEM SUMMARY

Sample Rating Trend

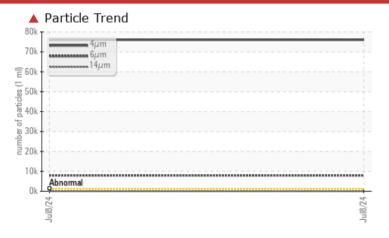
Machine Id

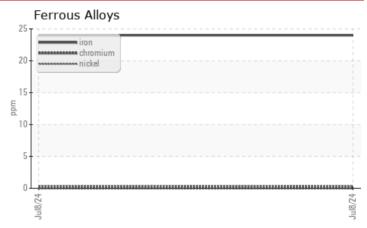
DB175-240705-0

Hydraulic System

VALVOLINE 1205 TRACTION OIL (--- GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

PROBLEMATIC TEST RESULTS							
Sample Status			SEVERE				
Particles >4µm	ASTM D7647	>1300	1 76044				
Particles >6µm	ASTM D7647	>320	1947				
Oil Cleanliness	ISO 4406 (c)	>17/15/13	23/20/12				

Customer Id: CVTSTE Sample No.: WC0772831 Lab Number: 02646708 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 Kevin.Marson@wearcheck.com

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com

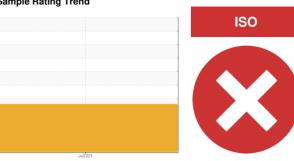
RECOMMENDED ACTIONS							
Action	Status	Date	Done By	Description			
Change Filter			?	We recommend you service the filters on this component.			
Resample			?	Resample in 30-45 days to monitor this situation.			
Information Required			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.			
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.			
Check Seals			?	Check seals and/or filters for points of contaminant entry.			

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

DB175-240705-0

Hydraulic System

VALVOLINE 1205 TRACTION OIL (--- GAL)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness code is much higher than the acceptable limit for the target ISO 4406 cleanliness code.

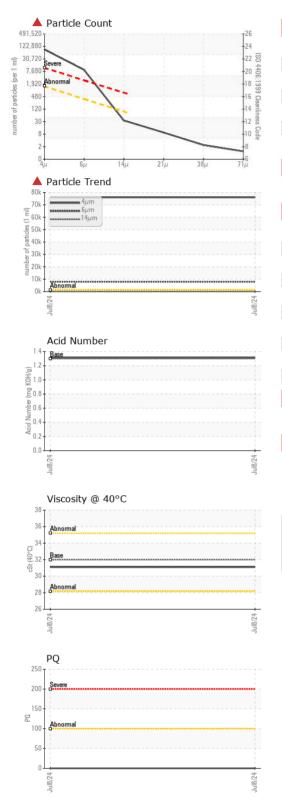
Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Machine Age hrs Client Info 0					Jul2024		
Sample Number Client Info WC0772831							
Sample Date Client Info 08 Jul 2024	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 08 Jul 2024	Sample Number		Client Info		WC0772831		
Machine Age hrs Client Info 0	Sample Date				08 Jul 2024		
Contamped Colient Info N/A Severe Severe Contamination Severe Contamination Severe Contamination Severe Contamination Severe Contamination Severe Contamination Contaminatio	Machine Age	hrs	Client Info		0		
CONTAMINATION method limit/base current history1 history2	Oil Age	hrs	Client Info		0		
Water WC Method Imilibase current history1 history2	Oil Changed		Client Info		N/A		
Water WC Method >0.05 NEG WEAR METALS method limit/base current history1 history2 VEAR METALS method limit/base current history1 history2 PQ ASTM D8185(m) 20 24 Iron ppm ASTM D5185(m) >20 0 Chromium ppm ASTM D5185(m) >20 <1 Nickel ppm ASTM D5185(m) >20 <1 Titanium ppm ASTM D5185(m) >20 <1 Aluminum ppm ASTM D5185(m) >20 <1	Sample Status				SEVERE		
WEAR METALS method limit/base current history1 history2 PQ ASTM D8184* 0 Iron ppm ASTM D5185(m) >20 24 Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) 0 Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) 0 Aluminum ppm ASTM D5185(m) >20 -1 Aluminum ppm ASTM D5185(m) >20 0 Aluminum ppm ASTM D5185(m) >20 0 Lead ppm ASTM D5185(m) >20 0 Copper ppm ASTM D5185(m) 0 Tit ppm ASTM D5185(m)	CONTAMINATIO	N	method	limit/base	current	history1	history2
PQ	Water		WC Method	>0.05	NEG		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >20 <1 Titanium ppm ASTM D5185(m) >20 <1 Silver ppm ASTM D5185(m) >20 <1 Aluminum ppm ASTM D5185(m) >20 0 Lead ppm ASTM D5185(m) >20 0 Copper ppm ASTM D5185(m) >20 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 0 170 <td>PQ</td> <td></td> <td>ASTM D8184*</td> <td></td> <td>0</td> <td></td> <td></td>	PQ		ASTM D8184*		0		
Chromium ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >20 <1 Titanium ppm ASTM D5185(m) 0 Silver ppm ASTM D5185(m) >20 <1 Aluminum ppm ASTM D5185(m) >20 0 Lead ppm ASTM D5185(m) >20 0 Copper ppm ASTM D5185(m) >20 0 Antimony ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Vanadium ppm ASTM D5185(m) 0 Beryllium ppm ASTM D5185(m) 0 Cadmium ppm ASTM D5185(m) 10 170	Iron	ppm	ASTM D5185(m)	>20	24		
Nickel	Chromium		ASTM D5185(m)	>20	0		
Silver	Nickel		ASTM D5185(m)	>20	<1		
Aluminum ppm ASTM D5185(m) >20 <1	Titanium	ppm	ASTM D5185(m)		0		
Lead	Silver	ppm	ASTM D5185(m)		0		
Copper ppm ASTM D5185(m) >20 1 Tin ppm ASTM D5185(m) >20 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 Cadmium ppm ASTM D5185(m) 190 170 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 190 170 Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) 2 Magnesium ppm </td <td>Aluminum</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>>20</td> <td><1</td> <td></td> <td></td>	Aluminum	ppm	ASTM D5185(m)	>20	<1		
Tin	Lead	ppm	ASTM D5185(m)	>20	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 Boron ppm ASTM D5185(m) 190 170 Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) 1 Magnesium ppm ASTM D5185(m) 2 Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 10 17 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) > 15 192 Sodium ppm ASTM D5185(m) > 15 192 Sodium ppm ASTM D5185(m) 155	Copper	ppm	ASTM D5185(m)	>20	1		
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 Boron ppm ASTM D5185(m) 190 170 Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Magnesium ppm ASTM D5185(m) 2 Magnesium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 1250 1092 Sulfur ppm ASTM D5185(m) >15 192 <th< td=""><td>Tin</td><td>ppm</td><td>ASTM D5185(m)</td><td>>20</td><td>0</td><td></td><td></td></th<>	Tin	ppm	ASTM D5185(m)	>20	0		
Beryllium	Antimony	ppm	ASTM D5185(m)		0		
Cadmium ppm ASTM D5185(m) 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 190 170 Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) 2 Magnesium ppm ASTM D5185(m) 75 91 Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) >15 192 -	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185(m) 190 170 Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) 2 Magnesium ppm ASTM D5185(m) 2 Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) >15 192 CONTAMINANTS method limit/base current history1 histor	Beryllium	ppm	ASTM D5185(m)		0		
Boron ppm ASTM D5185(m) 190 170 Barium ppm ASTM D5185(m) 8 8 ASTM D5185(m) 1 ASTM D5185(m) 1 ASTM D5185(m) 2 ASTM D5185(m) 2 ASTM D5185(m) 75 91 ASTM D5185(m) 450 412 ASTM D5185(m) 10 17 ASTM D5185(m) 1250 1092 ASTM D5185(m) 1250 1092 ASTM D5185(m) 2 ASTM D5185(m) 3 3 3 3 3 3 3 3 3	Cadmium	ppm	ASTM D5185(m)		0		
Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) 2 Magnesium ppm ASTM D5185(m) 75 91 Calcium ppm ASTM D5185(m) 450 412 Phosphorus ppm ASTM D5185(m) 10 17 Zinc ppm ASTM D5185(m) 1250 1092 Sulfur ppm ASTM D5185(m) <1	ADDITIVES		method	limit/base	current	history1	history2
Barium ppm ASTM D5185(m) 8 Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) <1	Boron	ppm	ASTM D5185(m)	190	170		
Molybdenum ppm ASTM D5185(m) 1 Manganese ppm ASTM D5185(m) <1 Magnesium ppm ASTM D5185(m) 2 Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15 15	Barium		. ,		8		
Manganese ppm ASTM D5185(m) <1 Magnesium ppm ASTM D5185(m) 2 Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15	Molybdenum		,		1		
Magnesium ppm ASTM D5185(m) 2 Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) <1	•		ASTM D5185(m)		<1		
Calcium ppm ASTM D5185(m) 75 91 Phosphorus ppm ASTM D5185(m) 450 412 Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) <1	-		ASTM D5185(m)				
Zinc ppm ASTM D5185(m) 10 17 Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15	Calcium		ASTM D5185(m)	75	91		
Sulfur ppm ASTM D5185(m) 1250 1092 Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15	Phosphorus	ppm	ASTM D5185(m)	450	412		
Sulfur ppm ASTM D5185(m) 1 250 1092 Lithium ppm ASTM D5185(m) < 1 <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15	•	ppm	ASTM D5185(m)	10	17		
Lithium ppm ASTM D5185(m) <1 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15	Sulfur		ASTM D5185(m)	1250	1092		
Silicon ppm ASTM D5185(m) >15 192 Sodium ppm ASTM D5185(m) 15	Lithium		ASTM D5185(m)		<1		
Sodium ppm ASTM D5185(m) 15	CONTAMINANTS	8	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185(m) 15	Silicon	ppm	ASTM D5185(m)	>15	192		
	Sodium		. ,				
	Potassium		, ,	>20			



OIL ANALYSIS REPORT



FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>1300	1 76044		
Particles >6µm		ASTM D7647	>320	1 7947		
Particles >14µm		ASTM D7647	>80	30		
Particles >21µm		ASTM D7647	>20	8		
Particles >38µm		ASTM D7647	>4	2		
Particles >71µm		ASTM D7647	>3	1		
Oil Cleanliness		ISO 4406 (c)	>17/15/13	23/20/12		
FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	1.3	1.31		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	VLITE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.05	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	TES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	31.1		
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image



CALA ISO 17025:2017 Accredited Laboratory

Laboratory

Sample No. Lab Number : 02646708 Unique Number : 5812260

: WC0772831

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9

Received : 09 Jul 2024 **Tested** : 10 Jul 2024 Diagnosed : 10 Jul 2024 - Kevin Marson

Test Package : IND 2 (Additional Tests: Bottom, PQ, 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.

CVT Corp.

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