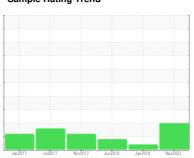


# **OIL ANALYSIS REPORT**

Sample Rating Trend



ISO



# INJ 212 (S/N 10735)

Hydraulic System

**SAE 10W (450 QTS)** 

# DIAGNOSIS

## Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

There is a high amount of particulates present in the oil.

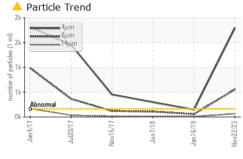
## **Fluid Condition**

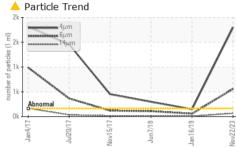
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

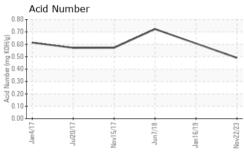
		Jan 2017	Jul2017 Nov2017	Jun2018 Jan2019	Nov2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		DC0028934	DCM2027008	DC04487758
Sample Date		Client Info		22 Nov 2023	16 Jan 2019	07 Jun 2018
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ATTENTION	ABNORMAL
CONTAMINATIO	V	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	8	4	2
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	0	0
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	2	2	2
Tin	ppm	ASTM D5185m	>10	0	<1	0
Antimony	ppm	ASTM D5185m			0	0
Vanadium	ppm	ASTM D5185m		0	0	0
0 1 1						
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	0 history2
	ppm		limit/base	-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 0	history1	history2
ADDITIVES Boron Barium	ppm	method ASTM D5185m ASTM D5185m	limit/base	current 0 0	history1 1 0	history2 1 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 0	history1  1 0 <1	history2 1 0 0
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 0 0	history1  1 0 <1 0	history2  1 0 0 <1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 0 0 0 0 12	history1  1 0 <1 0 76	history2  1 0 0 <-1 74
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	limit/base	current 0 0 0 0 12 48	history1  1 0 <1 0 76 132	history2  1 0 0 <-1 74 121
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current 0 0 0 0 12 48 328	history1  1 0 <1 0 76 132 343	history2  1 0 0 <-1 74 121 325
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base	current 0 0 0 0 12 48 328 359	history1  1 0 <1 0 76 132 343 420	history2  1 0 0 <1 74 121 325 392
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m		0 0 0 0 0 12 48 328 359 2567	history1  1 0 <1 0 76 132 343 420 5098	history2  1 0 0
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current  0  0  0  0  12  48  328  359  2567  current	history1  1 0 <1 0 76 132 343 420 5098 history1	history2  1 0 0 <-1 74 121 325 392 2798 history2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >20	current  0  0  0  0  12  48  328  359  2567  current	history1  1 0 <1 0 76 132 343 420 5098 history1 <1	history2  1 0 0 <-1 74 121 325 392 2798 history2 0
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >20	current 0 0 0 0 12 48 328 359 2567 current 1	history1  1 0 <1 0 76 132 343 420 5098 history1 <1	history2  1 0 0 -<1 74 121 325 392 2798 history2 0 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	limit/base >20 >20	current  0  0  0  12  48  328  359  2567  current  1  0  2	history1  1 0 <1 0 76 132 343 420 5098 history1 <1 2 <1	history2  1 0 0   1 74 121 325 392 2798 history2 0 2 1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >20 >20 limit/base >160	current  0  0  0  0  12  48  328  359  2567  current  1  0  2  current	history1  1 0 <1 0 76 132 343 420 5098 history1 <1 2 <1	history2  1 0 0 <li>&lt;1 74 121 325 392 2798 history2 0 2 1 history2</li>
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m	limit/base >20 >20 limit/base >160	current  0 0 0 0 12 48 328 359 2567 current 1 0 2 current 1 1	history1  1 0 <1 0 76 132 343 420 5098 history1 <1 2 <1 history1 149	history2  1 0 0 <1 74 121 325 392 2798 history2 0 2 1 history2  1 296
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m method ASTM D5185m	limit/base >20 >20 limit/base >160 >40 >10	current  0 0 0 0 12 48 328 359 2567 current 1 0 2 current  11797  1797  557	history1  1 0 <1 0 76 132 343 420 5098 history1 <1 2 <1 history1 149  ▲ 58	history2  1 0 0   1 74 121 325 392 2798 history2 0 2 1 history2  ▲ 296 ▲ 109
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >6µm  Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m method ASTM D5185m ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >160 >40 >10	current       0       0       0       0       12       48       328       359       2567       current       1       0       2       current       ▲ 1797       ▲ 557       ▲ 66	history1  1 0 <1 0 76 132 343 420 5098 history1 <1 2 <1 history1 149  ▲ 58 7	history2  1 0 0   1 74 121 325 392 2798 history2  0 2 1 history2  ▲ 296 ▲ 109 9
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  FLUID CLEANLIN  Particles >4µm  Particles >6µm  Particles >14µm  Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >160 >40 >10 >3 >3	current       0       0       0       0       12       48       328       359       2567       current       1       0       2       current       ▲ 1797       ▲ 557       ▲ 66       ▲ 18	history1  1 0 <1 0 76 132 343 420 5098 history1 <1 2 <1 history1 149  ▲ 58 7 3	history2  1 0 0   1 74 121 325 392 2798 history2 0 2 1 history2  ▲ 296 ▲ 109 9 2 2

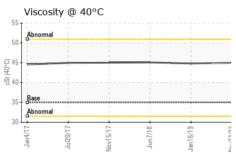


# OIL ANALYSIS REPORT

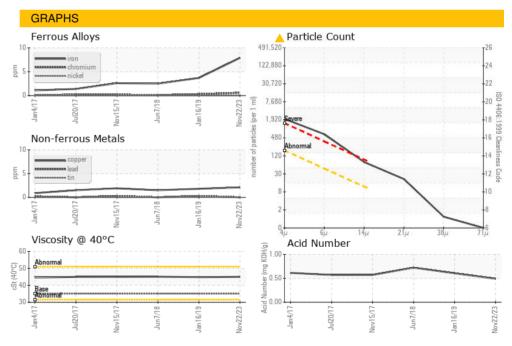
















Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number

: 06016341 Unique Number: 10755485 Test Package : MOB 2

To discuss this sample report, contact Customer Service at 1-800-237-1369.

**Bottom** 

: DC0028934

Received : 24 Nov 2023 **Tested** Diagnosed

: 27 Nov 2023

: 28 Nov 2023 - Jonathan Hester

**PLASTIPAK** 1801 CLARK RD HAVRE DEGRACE, MD US 21078

Contact: BRETT ARBOGAST

barbogast@plastipak.com T: (410)942-9899

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: PLAHAV [WUSCAR] 06016341 (Generated: 02/21/2024 08:15:03) Rev: 1

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