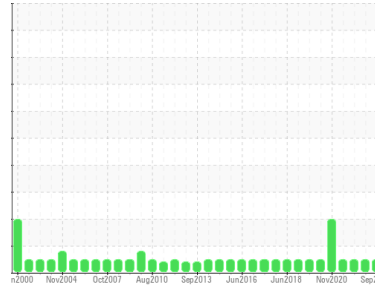




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**WQR [100000067927]**  
 Machine Id  
**RAWDHPU (S/N H-930057)**  
 Component  
**Hydraulic System**  
 Fluid  
**MOBIL UNIVIS N-C 32 (200 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0312893</b>	WC0429605	WC0429600
Sample Date	Client Info		<b>28 Sep 2023</b>	06 Oct 2022	01 Apr 2022
Machine Age	mths	Client Info	<b>348</b>	342	336
Oil Age	mths	Client Info	<b>36</b>	24	18
Oil Changed	Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>30	<b>&lt;1</b>	<1	0
Chromium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Lead	ppm	ASTM D5185(m)	>10	<b>1</b>	1	<1
Copper	ppm	ASTM D5185(m)	>25	<b>2</b>	2	1
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Calcium	ppm	ASTM D5185(m)		<b>107</b>	116	109
Phosphorus	ppm	ASTM D5185(m)		<b>448</b>	493	475
Zinc	ppm	ASTM D5185(m)		<b>53</b>	15	16
Sulfur	ppm	ASTM D5185(m)		<b>1392</b>	1409	1352
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>11</b>	11	12
Sodium	ppm	ASTM D5185(m)		<b>1</b>	1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1

## FLUID CLEANLINESS

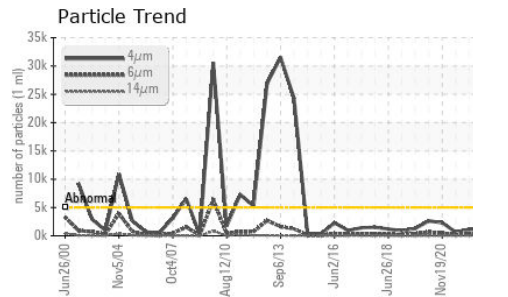
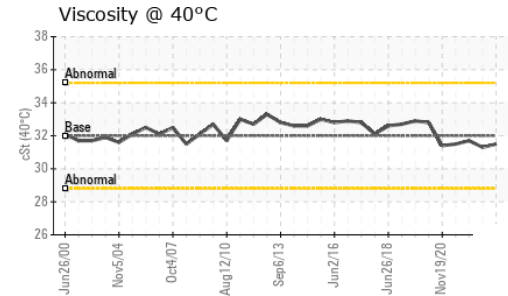
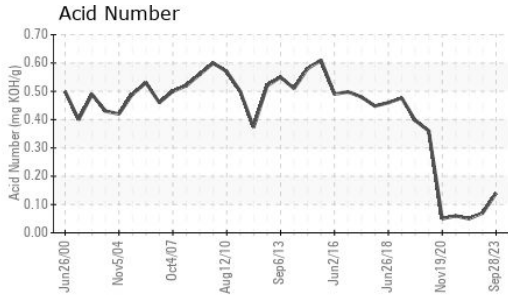
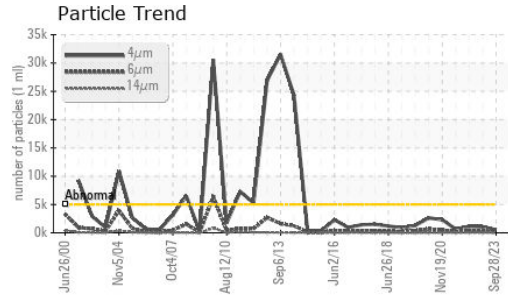
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>540</b>	1050	1160
Particles >6µm	ASTM D7647	>1300	<b>155</b>	250	359
Particles >14µm	ASTM D7647	>160	<b>18</b>	32	40
Particles >21µm	ASTM D7647	>40	<b>6</b>	10	5
Particles >38µm	ASTM D7647	>10	<b>2</b>	1	1
Particles >71µm	ASTM D7647	>3	<b>2</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>16/14/11</b>	17/15/12	17/16/12

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	<b>0.14</b>	0.07	0.05



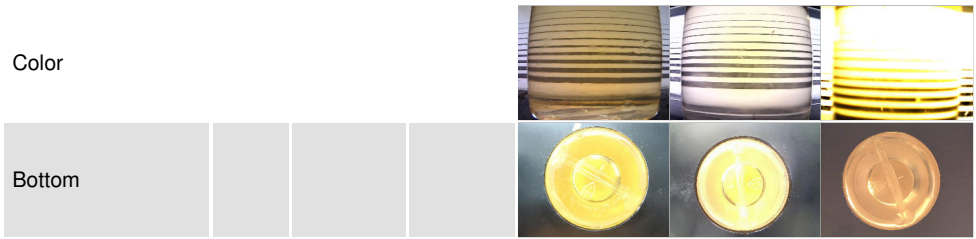
# OIL ANALYSIS REPORT



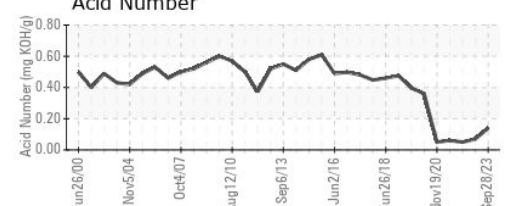
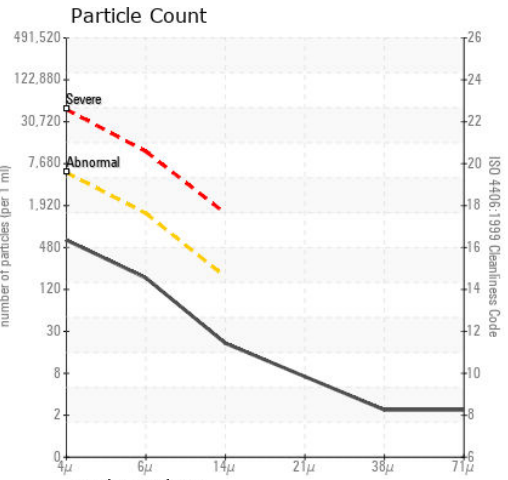
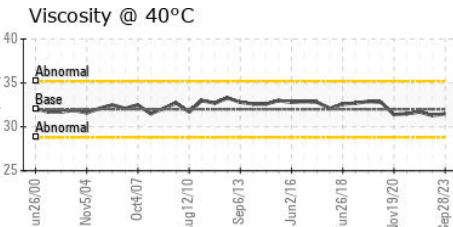
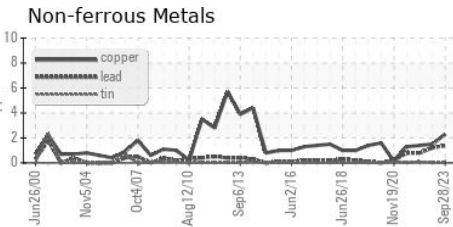
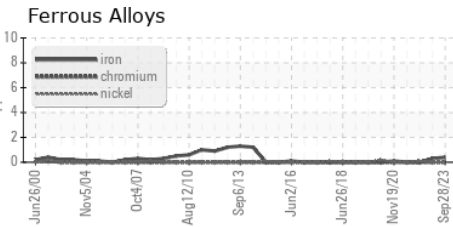
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	31.5	31.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ALGONQUIN POWER SYSTEMS INC.  
**Sample No.** : WC0312893 **Received** : 16 Oct 2023 354 DAVIS ROAD  
**Lab Number** : 02589304 **Diagnosed** : 17 Oct 2023 OAKVILLE, ON  
**Unique Number** : 5658370 **Diagnostician** : Wes Davis CA L6J 2X1  
**Test Package** : IND 2 ( Additional Tests: TAN Man )  
 Contact: Antonino Champ Fernando  
 antoninoChamp.fernando@algonquinpower.com  
 T: (905)465-7065  
 F: x:

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.