

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



#### Machine Id RK 316 Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 32 (--- LTR)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

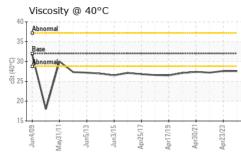
### Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0917760	WC0790392	WC0672009
Sample Date		Client Info		25 Apr 2024	23 Apr 2023	24 Apr 2022
Machine Age	mls	Client Info		0	0	0
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	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	<1	2	2
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	<1	4	2
Lead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>75	3	4	5
Tin	ppm	ASTM D5185m	>10	0	0	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	<1
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	1	1
Manganese	ppm	ASTM D5185m		0	<1	0
		ASTM D5185m	25	0	-1	
Magnesium	ppm	ASTIVI DJ TOJITI	20	•	<1	<1
Magnesium Calcium	ppm ppm	ASTM D5185m	200	90	93	<1 101
•				-		
Calcium	ppm	ASTM D5185m	200	90	93	101
Calcium Phosphorus	ppm ppm	ASTM D5185m ASTM D5185m	200 300	90 354	93 366	101 378
Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370	90 354 386	93 366 419	101 378 394
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370 2500	90 354 386 1667	93 366 419 1919	101 378 394 1462
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 300 370 2500 limit/base	90 354 386 1667 current	93 366 419 1919 history1	101 378 394 1462 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	200 300 370 2500 limit/base >20	90 354 386 1667 current 0	93 366 419 1919 history1 1	101 378 394 1462 history2 <1
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m	200 300 370 2500 limit/base >20	90 354 386 1667 <u>current</u> 0 1	93 366 419 1919 history1 1 <1	101 378 394 1462 history2 <1 <1
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370 2500 limit/base >20	90 354 386 1667 current 0 1 0	93 366 419 1919 history1 1 <1 0	101 378 394 1462 history2 <1 <1 <1 0
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370 2500 limit/base >20 limit/base	90 354 386 1667 current 0 1 0 current	93 366 419 1919 history1 1 <1 0 history1	101 378 394 1462 history2 <1 <1 <1 0 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XSTM D5185m	200 300 370 2500 limit/base >20 limit/base NONE	90 354 386 1667 current 0 1 0 current NONE NONE NONE NONE	93 366 419 1919 history1 1 <1 0 history1 NONE	101 378 394 1462 history2 <1 <1 <1 0 history2 NONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	200 300 370 2500 imit/base >20 >20 imit/base NONE NONE NONE NONE NONE	90 354 386 1667 current 0 1 0 current NONE NONE	93 366 419 1919 history1 1 <1 <1 0 history1 NONE NONE	101 378 394 1462 146214631464
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	200 300 370 2500 imit/base >20 >20 imit/base NONE NONE NONE NONE	90 354 386 1667 current 0 1 0 current NONE NONE NONE NONE	93 366 419 1919 history1 1 <1 <1 0 history1 NONE NONE NONE NONE	101 378 394 1462 -1 <1 <1 <1 0 -1 0 -1 0 -1 0 -1 0 -1 0
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	200 300 370 2500 imit/base >20 >20 imit/base NONE NONE NONE NONE NONE	90 354 386 1667 current 0 1 0 current NONE NONE NONE NONE NONE	93 366 419 1919 history1 1 <1 <1 0 history1 NONE NONE NONE NONE NONE	101 378 394 1462 146214631464
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	200 300 370 2500 <b>Imit/base</b> >20 <b>Imit/base</b> NONE NONE NONE NONE NONE NONE	90 354 386 1667 <b>current</b> 0 1 0 <b>current</b> NONE NONE NONE NONE NONE	93 366 419 1919 history1 1 <1 <1 0 history1 NONE NONE NONE NONE NONE NONE	101 378 394 1462 <1<1<10history2NONENONENONENONENONENONENONENONENONENONENONENONENONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 300 370 2500 <b>Imit/base</b> >20 <b>S</b> 20 <b>Imit/base</b> NONE NONE NONE NONE NONE NONE NONE NON	90 354 386 1667 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	93 366 419 1919 history1 1 <1 <1 0 history1 NONE NONE NONE NONE NONE NONE NONE	101 378 394 1462 <1<1<10history2NONENONENONENONENONENONENONENONENONENONENONENONENONENONENONENONENONENONENONE
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	200 300 370 2500 <b>Imit/base</b> >20 >20 <b>Imit/base</b> >20 <b>Imit/base</b> NONE NONE NONE NONE NONE NONE NONE NON	90 354 386 1667 0 1 0 1 0 0 <u>current</u> NONE NONE NONE NONE NONE NONE NONE NON	93 366 419 1919 history1 1 <1 <1 0 history1 NONE NORE NEG	101 378 394 1462 <b>history2</b> <1 <1 <1 0 <b>history2</b> NONE NONE NONE NONE NONE NONE NONE NON



# **OIL ANALYSIS REPORT**



	FLUID PROPERTIE	S method	limit/base	current	history1	history2
	Visc @ 40°C	St ASTM D445	32	27.6	27.6	27.2
*****	SAMPLE IMAGES	method	limit/base	current	history1	history2
Apr30/21	Color			no image	no image	no image
	Bottom		-	no image	no image	no image
	GRAPHS					
	Ferrous Alloys	<u></u>	Apr23/23			
Laboratory	: WearCheck USA - 501	Madison Ave., Cary		COLC	ORADO SPRING	
Sample No. Lab Number	: WC0917760 : 06176400		May 2024 May 2024			7 E. BIJOU ST. SPRINGS, CO



Lab Number : 06176400 Tested : 13 May 2024 Unique Number : 11022453 : 14 May 2024 - Sean Felton Diagnosed Test Package : FLEET Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

COLORADO SPRINGS, CO US 80911

Contact: JAMES MONTERA jmontera@springsgov.com T: (719)385-7380 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (719)385-7382

Contact/Location: JAMES MONTERA - COLCOLCO