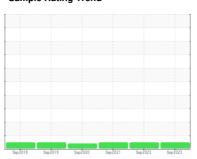


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



RK TRUCK 29

Component

Hydraulic System

AW HYDRAULIC OIL ISO 32 (--- QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

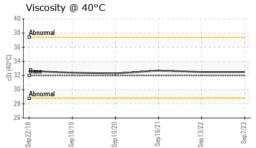
Fluid Condition

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

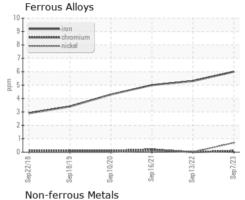
Sample Date			Sep2018	Sep2019 Sep2020	Sep2021 Sep2022	Sep2023	
Sample Date	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 158 0 0 Oil Age hrs Client Info 158 0 0 Oil Changed Client Info N/A Not Changd Not Changd Sample Status method limit/base current history1 history2 Iron ppm ASTM D5185m >20 6 5 5 Chromium ppm ASTM D5185m >10 <1	Sample Number		Client Info		WC0843909	WC0724231	WC0609673
Oil Age hrs Client Info 158 0 0 Oil Changed Sample Status Client Info N/A Not Changd Not Changd Not Changd WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 6 5 5 Chromium ppm ASTM D5185m >10 <1 0 <1 Nickel ppm ASTM D5185m >10 <1 0 <1 Nickel ppm ASTM D5185m >10 <1 0 <1 Silver ppm ASTM D5185m >10 0 0 0 Aluminum ppm ASTM D5185m >10 0 <1 0 Lead ppm ASTM D5185m >10 0 <1 0 Copper ppm ASTM D5185m >10 0 0 0 Vanadium ppm ASTM D5185m 0 0 0	Sample Date		Client Info		07 Sep 2023	13 Sep 2022	16 Sep 2021
Oil Changed Client Info N/A Not Changd NORMAL NORMAL NORMAL	Machine Age	hrs	Client Info		158	0	0
NORMAL NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2	Oil Age	hrs	Client Info		158	0	0
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >20 6 5 5 Chromium ppm ASTM D5185m >10 <1 0 <1 Nickel ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >10 0 <1 0 Aluminum ppm ASTM D5185m >10 <1 0 <1 Lead ppm ASTM D5185m >10 <1 0 <1 Lead ppm ASTM D5185m >10 <1 0 <1 Lead ppm ASTM D5185m >10 <1 0 <1 April D5185m >10 <1 0 0 0 0 April D5185m >10 <1 <1 <1 <1 <1 </th <th>Oil Changed</th> <th></th> <th>Client Info</th> <th></th> <th>N/A</th> <th>Not Changd</th> <th>Not Changd</th>	Oil Changed		Client Info		N/A	Not Changd	Not Changd
	Sample Status				NORMAL		_
Chromium ppm ASTM D5185m >10 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>20	6	5	5
Titanium	Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Silver	Nickel	ppm	ASTM D5185m	>10	<1	0	<1
Aluminum	Titanium	ppm	ASTM D5185m		0	0	0
Lead	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >75 2 2 2 2 Tin ppm ASTM D5185m >10 <1 0 0 Antimony ppm ASTM D5185m 0 0 0 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 0 0 Magnesium ppm ASTM D5185m 5 4 2 3 Calcium ppm ASTM D5185m 200 83 74 88 Phosphorus ppm ASTM D5185m 300 433 417 446	Aluminum	ppm	ASTM D5185m	>10	0	<1	0
Tin ppm ASTM D5185m >10	Lead	ppm	ASTM D5185m	>10	<1	0	<1
Trin	Copper		ASTM D5185m	>75	2	2	2
Antimony ppm ASTM D5185m 0 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	Tin		ASTM D5185m	>10	<1	0	0
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	Antimony		ASTM D5185m				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 <1 <1 <1 Manganese ppm ASTM D5185m 0 0 0 0 Magnesium ppm ASTM D5185m 25 4 2 3 Calcium ppm ASTM D5185m 200 83 74 88 Phosphorus ppm ASTM D5185m 200 433 417 446 Zinc ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1	•		ASTM D5185m		0	0	0
Boron	Cadmium		ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 5 0 0 0 Molybdenum ppm ASTM D5185m 5 <1 <1 <1 Manganese ppm ASTM D5185m 25 4 2 3 Calcium ppm ASTM D5185m 200 83 74 88 Phosphorus ppm ASTM D5185m 200 433 417 446 Zinc ppm ASTM D5185m 370 471 440 469 Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 1 </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 5 <1	Boron	ppm	ASTM D5185m	5	0	0	<1
Manganese ppm ASTM D5185m 0 0 0 Magnesium ppm ASTM D5185m 25 4 2 3 Calcium ppm ASTM D5185m 200 83 74 88 Phosphorus ppm ASTM D5185m 300 433 417 446 Zinc ppm ASTM D5185m 370 471 440 469 Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 <1 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE	Barium	ppm	ASTM D5185m	5	0	0	0
Magnesium ppm ASTM D5185m 25 4 2 3 Calcium ppm ASTM D5185m 200 83 74 88 Phosphorus ppm ASTM D5185m 300 433 417 446 Zinc ppm ASTM D5185m 370 471 440 469 Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1	Molybdenum	ppm	ASTM D5185m	5	<1	<1	<1
Calcium ppm ASTM D5185m 200 83 74 88 Phosphorus ppm ASTM D5185m 300 433 417 446 Zinc ppm ASTM D5185m 370 471 440 469 Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 <1 0 0 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL method limit/base current history1 history2 VISUAL NONE NONE NONE NONE NONE Visual <td< th=""><th>Manganese</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>0</th><th>0</th><th>0</th></td<>	Manganese	ppm	ASTM D5185m		0	0	0
Phosphorus ppm ASTM D5185m 300 433 417 446 Zinc ppm ASTM D5185m 370 471 440 469 Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 1 0 0 Potassium ppm ASTM D5185m >20 <1 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual	Magnesium	ppm	ASTM D5185m	25	4	2	3
Zinc ppm ASTM D5185m 370 471 440 469 Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 1 0 0 <1 Potassium ppm ASTM D5185m >20 <1 0 0 <1 0 0 <1 0 0 <1 0 0 <1 0 0 <1 0 0 <1 0 0 <1 0 0 0 <1 0 0 0 <1 0 0 <1 0 0 0 <1 0 0 0 <1 0 0 0 <1 0 0 0 <1 0 0	Calcium	ppm	ASTM D5185m	200	83	74	88
Sulfur ppm ASTM D5185m 2500 1119 1072 1688 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 <1 0 0 Potassium ppm ASTM D5185m >20 <1 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NORM	Phosphorus	ppm	ASTM D5185m	300	433	417	446
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 1 <1 1 Sodium ppm ASTM D5185m >20 <1 0 0 Potassium ppm ASTM D5185m >20 <1 0 0 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 NORML	Zinc	ppm	ASTM D5185m	370	471	440	469
Silicon ppm ASTM D5185m >20 1 <1	Sulfur	ppm	ASTM D5185m	2500	1119	1072	1688
Sodium ppm ASTM D5185m 0 0 <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 0 0 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Silicon	ppm	ASTM D5185m	>20	1	<1	1
VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Sodium	ppm	ASTM D5185m		0	0	<1
White Metal scalar *Visual NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Potassium	ppm	ASTM D5185m	>20	<1	0	0
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONEVLITESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	White Metal				_		
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE VLITE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Yellow Metal						
Debrisscalar*VisualNONENONENONEVLITESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Precipitate						
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Silt						
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG						NONE	VLITE
Odor scalar *Visual NORML NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Sand/Dirt	scalar					NONE
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG

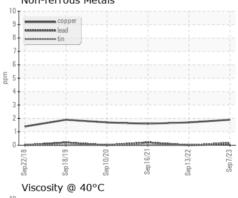


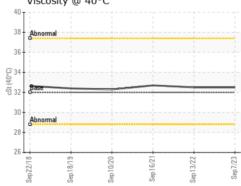
OIL ANALYSIS REPORT



Visc @ 40°C cSt ASTM D445 32 32.5 SAMPLE IMAGES method limit/base current	32.5 history1	32.7
SAMPLE IMAGES method limit/base current	history1	
	Thistory	history2
Color no image	no image	no image
Bottom no image	no image	no image











Laboratory Sample No. Lab Number Unique Number : 10669147 Test Package : FLEET

: WC0843909 : 05962596

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 27 Sep 2023 Diagnosed

: 28 Sep 2023 Diagnostician : Wes Davis

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.

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

SEMINOLE FIRE RESCUE

11195 70TH AVE. NORTH SEMINOLE, FL

US 33772 Contact: BRAD ROWND

brownd@myseminole.com T: (727)744-8287

Submitted By: RANDY PRICE