

OIL ANALYSIS REPORT



Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

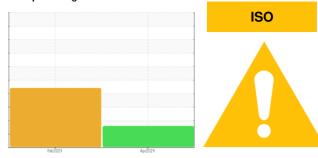
All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

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.



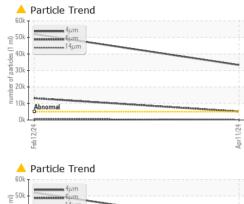
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0120881	PCA0113825	
Sample Date		Client Info		11 Apr 2024	12 Feb 2024	
Machine Age	hrs	Client Info		3964	3476	
Oil Age	hrs	Client Info		0	250	
Oil Changed		Client Info		Changed	N/A	
Sample Status				ABNORMAL	SEVERE	
CONTAMINATI	ION	method	limit/base	current	history1	history2
Water		WC Method		NEG	NEG	
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm		>20	0	2	
Chromium	ppm	ASTM D5185m	>10	<1	<1	
Nickel	ppm	ASTM D5185m	>10	<1	0	
Titanium	ppm	ASTM D5185m	210	<1	0	
Silver	ppm	ASTM D5185m		<1	0	
Aluminum	ppm	ASTM D5185m	>10	2	0	
Lead	ppm	ASTM D5185m	>10	1	<1	
Copper	ppm	ASTM D5185m	>75	י <1	1	
Tin	ppm	ASTM D5185m	>10	1	<1	
Vanadium		ASTM D5185m	>10	<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
	ppm		1		-	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	0	0	
Barium	ppm	ASTM D5185m	5	<1	0	
Molybdenum	ppm	ASTM D5185m	5	1	0	
		ASTM D5185m		<1	<1	
	ppm					
Magnesium	ppm	ASTM D5185m	25	<1	2	
Magnesium Calcium		ASTM D5185m ASTM D5185m	200	55	103	
Magnesium Calcium Phosphorus	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200 300	55 327	103 316	
Magnesium Calcium Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	200 300 370	55 327 422	103 316 438	
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	200 300	55 327	103 316	
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 300 370	55 327 422 860 current	103 316 438	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 300 370 2500	55 327 422 860 current 2	103 316 438 880 history1 <1	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	200 300 370 2500 limit/base	55 327 422 860 current	103 316 438 880 history1	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m	200 300 370 2500 limit/base >20	55 327 422 860 current 2	103 316 438 880 history1 <1	
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	200 300 370 2500 limit/base >20	55 327 422 860 <u>current</u> 2 0	103 316 438 880 history1 <1 2	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m 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 >5000	55 327 422 860 current 2 0 1 1 current 1 33284	103 316 438 880 history1 <1 2 <1 2 <1 history1 history1 ▲ 52029	 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >20 limit/base >5000 >1300	55 327 422 860 current 2 0 1 2 0 1 33284 ▲ 33284	103 316 438 880 history1 <1 2 <1 2 <1 history1 0 2 <1 2 <1 1 1 3 2 <1 1 1 3 2 <1 1 3 4 3 2 2 <1 3 1 6 4 3 8 8 0 1 6 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 8 8 0 4 8 8 0 4 8 8 9 4 8 8 9 4 8 8 9 4 8 8 9 4 8 8 9 8 9	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >20 s20 limit/base >20 s5000 >1300 >160	55 327 422 860 current 2 0 1 2 0 1 33284 ▲ 33284 ▲ 5121 ● 166	103 316 438 880 history1 <1 2 <1 2 <1 history1 ▲ 52029 ▲ 13192 ▲ 745	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >20 s20 limit/base >20 s5000 >1300 >160	55 327 422 860 current 2 0 1 2 0 1 33284 ▲ 33284	103 316 438 880 history1 <1 2 <1 2 <1 history1 0 2 <1 2 <1 1 1 3 2 <1 1 1 3 2 <1 1 3 4 3 2 2 <1 3 1 6 4 3 8 8 0 1 6 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 3 8 8 0 4 8 8 0 4 8 8 0 4 8 8 9 4 8 8 9 4 8 8 9 4 8 8 9 4 8 8 9 8 9	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >20 limit/base >5000 >1300 >160 >40 >10	55 327 422 860 current 2 0 1 2 0 1 33284 ▲ 33284 ▲ 5121 ● 166	103 316 438 880 history1 <1 2 <1 2 <1 history1 ▲ 52029 ▲ 13192 ▲ 13192 ▲ 745 ▲ 163 3	 history2 history2
Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >20 limit/base >5000 >1300 >160 >40 >10	55 327 422 860 <u>current</u> 2 0 1 1 <u>current</u> 33284 ▲ 5121 ● 166 51	103 316 438 880 history1 <1 2 <1 2 <1 history1 ▲ 52029 ▲ 13192 ▲ 13192 ▲ 745 ▲ 163	 history2 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 limit/base >20 limit/base >5000 >1300 >160 >40 >10	55 327 422 860 current 2 0 1 2 0 1 1 current 33284 ▲ 5121 ● 166 51 4	103 316 438 880 history1 <1 2 <1 2 <1 history1 ▲ 52029 ▲ 13192 ▲ 13192 ▲ 745 ▲ 163 3	 history2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANL Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm TS ppm ppm ppm _INESS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5617 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	200 300 370 2500 Iimit/base >20 S20 Iimit/base >5000 >1300 >160 >40 >10 >3	55 327 422 860 current 2 0 1 2 0 1 1 current 33284 ▲ 33284 ▲ 5121 ● 166 51 4 0	103 316 438 880 history1 <1 2 <1 2 <1 history1 ▲ 52029 ▲ 13192 ▲ 13192 ▲ 745 ▲ 163 3 0	 history2 history2 history2

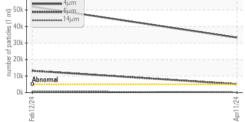
Report Id: SCRBLUIL [WUSCAR] 06159780 (Generated: 04/25/2024 16:38:48) Rev: 1

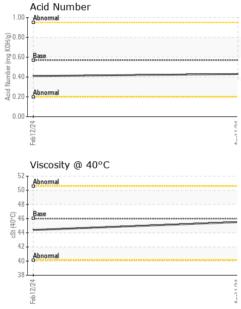
Contact/Location: SERGIO FERNANDEZ - SCRBLUIL



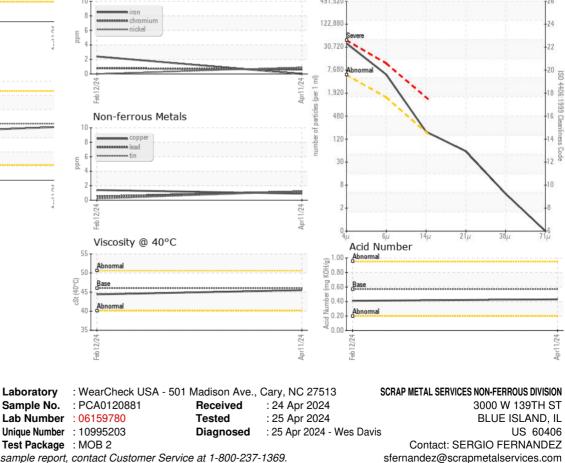
OIL ANALYSIS REPORT







		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	
ellow Metal	scalar	*Visual	NONE	NONE	NONE	
Precipitate	scalar	*Visual	NONE	NONE	NONE	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	LIGHT	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
ppearance	scalar	*Visual	NORML	NORML	NORML	
)dor	scalar	*Visual	NORML	NORML	NORML	
mulsified Water	scalar	*Visual	>0.1	NEG	NEG	
ree Water	scalar	*Visual		NEG	NEG	
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D445	46	45.5	44.4	
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color				•	a.	no image
Bottom						no image
GRAPHS						
Ferrous Alloys				Deutiele Count		
Terrous Alloys				Particle Count		
			491,520		L	T ²⁰
iron chromium					L	
iron			491,520	Severe		-2'
iron			491,520 122,880 30,720	Severe		-24 -24 -22
iron chromium nickel			491,520 122,880 30,720	Severe		-2'
iron chromium nickel			491,520 122,880 30,720	Severe		-24 -21 -21
iron chromium nickel			491,520 122,880 30,720	Severe	∙ • •	-2" -2; -2 -18
iron chromium nickel			491,520 122,880 30,720	Severe	•	-2 -2 -2 -1
iron chromium nickel			491,520 122,880 30,720	Severe		-2 -2 -11 -11
iron chromium nickel			491,520 122,880 30,720 7,680 420 1,920 480 50 50 480 120	Abnormal		-2 -2 -11 -11
iron chromium nickel			491,520 122,880 30,720	Abnormal		-2 -2 -11 -11
ton tron thromium nickel ton tin tin			491,520 122,880 30,720 7,680 420 1,920 480 50 50 480 120	Abnormal		-2- -2: -2: -1: -1: -1: -1:
iron chromium nickel			491,520 122,880 30,720 7,680 6211 1920 480 63 920 480 640 1,920 480 60 120 80 80 80 80 80 80 80 80 80 80 80 80 80	Severe		-2- -2: -2: -1: -1: -1: -1:
iron chromium nickel			491,520 122,880 30,720 7,680 420 1,920 480 480 120 30 480 30 480 480 480 480 480 480 480 48	Abnormal		-2- -2: -2: -1: -1: -1: -1:
iron chromium nickel 4722199 Non-ferrous Metals			491,520 122,880 30,720 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,680 7,00 7,00 7,00 7,00 7,00 7,00 7,00 7,	Abnormal	14μ 21μ	-2 -2 -11 -11 -11 -11 -11
iron chromium nickel			491,520 122,880 30,720 7,680 62/11/10 480 480 480 480 480 480 480 48	Abnormal		-2 -2 -11 -11 -11 -11 -11 -11 -11 -11 -1
iron chromium nickel 42721qg Non-ferrous Metals			491,520 122,880 30,720 7,680 62/11/10 480 480 480 480 480 480 480 48	Abnormal		-2- -2- -2- -10 -10 -10 -10 -10 -10 -10 -8 -8
iron chromium nickel Non-ferrous Metals			491,520 122,880 30,720 7,680 62/11/10 480 480 480 480 480 480 480 48	Abnormal		-2 -2 -11 -11 -11 -11 -11 -11 -11 -11 -1
iron chromium nickel HOD-ferrous Metals copper lead Viscosity @ 40°C Abnormal			491,520 122,880 30,720 7,680 62/11/10 480 480 480 480 480 480 480 48	Abnormal		-2 -2 -11 -11 -11 -11 -11 -11 -11 -11 -1
iron chromium nickel Non-ferrous Metals copper lad tin Viscosity @ 40°C Abnomal Base			491,520 122,880 30,720 7,680 62/11/04 1,920 480 122 480 1,920 480 122 480 1,920 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 100 480 120 480 120 480 100 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 120 480 120 120 120 120 120 120 120 12	Severe Abnormal Acid Number Abnormal		-2 -2 -11 -11 -11 -11 -11 -11 -11 -11 -1
Non-ferrous Metals			491,520 122,880 30,720 7,680 120,000 120,000 1,920	Abnormal		-2 -2 -11 -11 -11 -11 -11 -11 -11 -11 -1
Non-ferrous Metals			491,520 122,880 30,720 7,680 62/11/04 1,920 480 122 480 1,920 480 122 480 1,920 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 100 480 120 480 120 480 100 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 480 120 120 480 120 120 120 120 120 120 120 12	Severe Abnormal Acid Number Abnormal		-2- -2- -2- -10 -10 -10 -10 -10 -10 -10 -8 -8



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)

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Certificate L2367

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Contact/Location: SERGIO FERNANDEZ - SCRBLUIL

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