

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area Extrudex Quebec - E04700 Machine Id XB089

Component Hydraulic System Fluid AW HYDRAULIC OIL ISO 68 (--- GAL)

DIAGNOSIS

Recommendation

This is a baseline read-out on the submitted sample.

Wear

{not applicable}

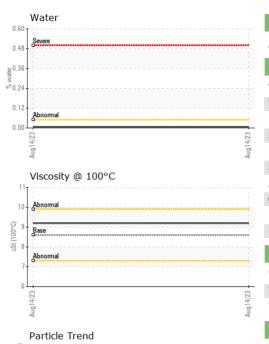
Contamination {not applicable}

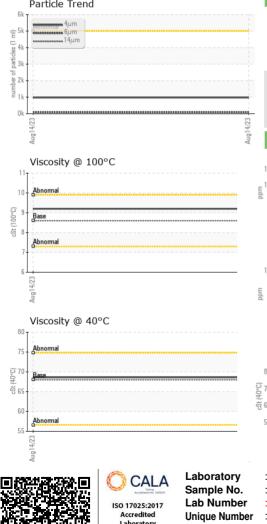
Fluid Condition {not applicable}

				Aug2023		
SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
Sample Number		Client Info		E30000153		
Sample Date		Client Info		14 Aug 2023		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Dil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
ron	ppm	ASTM D5185(m)	>20	13		
Chromium	ppm	ASTM D5185(m)	>20	0		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	2		
_ead	ppm	ASTM D5185(m)	>20	<1		
Copper	ppm	ASTM D5185(m)	>20	9		
Tin	ppm	ASTM D5185(m)	>20	0		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
					,	
	ppm	ASTM D5185(m)	5	0		
Boron	ppm ppm		5	0		
3oron 3arium		ASTM D5185(m)	5			
Boron Barium Molybdenum	ppm	ASTM D5185(m) ASTM D5185(m)	5 5	0		
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5	0 0		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	0 0 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 25	0 0 <1 40		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200	0 0 <1 40 66	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300	0 0 <1 40 66 426	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370	0 0 <1 40 66 426 447	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370	0 0 <1 40 66 426 447 1002	 	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370 2500	0 0 <1 40 66 426 447 1002 <1		
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 25 200 300 370 2500	0 0 <1 40 66 426 447 1002 <1	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	5 5 25 200 300 370 2500	0 0 <1 40 66 426 447 1002 <1 current <1	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 imit/base >15	0 0 <1 40 66 426 447 1002 <1 current <1 2	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 2500 limit/base >15 >20	0 0 <1 40 66 426 447 1002 <1 current <1 2 0	 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 2500 imit/base >15 >20 >20 >0.05	0 0 <1 40 66 426 447 1002 <1 <i>current</i> <1 2 0 0 0.004	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water opm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 2500 limit/base >15 >20 >20 >0.05 >500	0 0 <1 40 66 426 447 1002 <1 current <1 2 0 0 0.004 48.8	 history1 	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5304*	5 5 5 200 300 370 2500 2500 Imit/base >15 >20 >0.05 >500 Imit/base	0 0 <1 40 66 426 447 1002 <1 <i>current</i> <1 2 0 0 0.004 48.8 <i>current</i>	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water opm Water FLUID CLEANLIN Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	5 5 5 200 300 370 2500 2500 limit/base >20 500 500 limit/base	0 0 <1 40 66 426 447 1002 <1 current 2 0 0.004 48.8 current 973	 history1 history1 	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D6304* ASTM D6304* ASTM D6304*	5 5 5 25 200 300 370 2500 2500 2500 >15 >20 >20 >500 20 5500 20 20 20 20 20 20 20 20 20 20 20 20 2	0 0 <1 40 66 426 447 1002 <1 current <1 2 0 0.004 48.8 current 973 72	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water opm Water FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 2500 >15 >20 >20 >500 20 5500 20 20 20 20 20 20 20 20 20 20 20 20 2	0 0 <1 40 66 426 447 1002 <1 current <1 2 0 0 0.004 48.8 <i>current</i> 973 72 7	 history1 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5047 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 imit/base >20 >0.05 >500 imit/base >5000 >1300 >160 >160 >10	0 0 <1 40 66 426 447 1002 <1 <i>current</i> <1 2 0 0.004 48.8 <i>current</i> 973 72 7 1	history1 history1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 limit/base >20 >0.05 >500 limit/base >5000 >1300 >160 >160 >10	0 0 <1 40 66 426 447 1002 <1 <i>current</i> <1 2 0 0.004 48.8 <i>current</i> 973 72 7 1 0	 history1 history1 history1	 history2 history2 history2



OIL ANALYSIS REPORT





FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.53		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt	scalar	Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt	scalar	Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Odor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.05	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	68	68.6		
Visc @ 100°C	cSt	ASTM D7279(m)	8.6	9.2		
Viscosity Index (VI)	Scale	ASTM D2270*	96	110		
SAMPLE IMAGES	S	method	limit/base	current	history1	history2
Color Bottom					no image no image	no image
GRAPHS					no image	no image
Ferrous Alloys			101 500	Particle Count		20
iron			491,520			[²⁶
0 5			122,880	Severe		-24
			30,720			-22
4/23			1 ml 7,680	Abnormal		-20 4
Aug1			s (per 1 m 1920, 1 2007, 1 200		· · · · · · · · · · · · · · · · · · ·	-18
Non-ferrous Metal	s		Aug 14/23 1292.0 at particles (per 1 m) 480			-20 0 4406:1999 Cleanti -18 1999 Cleanti
Copper]			j 120			
5 - tin			agumn 30			-12 Code
			3	+		-10
1/23			4/23			-8
Aug14/23			Aug14/23			
Viscosity @ 40°C				4µ́ 6µ́ Acid Number	14µ 21µ	38µ 71µ
Abnormal			Hy 1.00	AL 1		
70 - Base			23 Acid Number MCH/(g) 2000	Base		
70 - Base 50 - Abnormal			ង 0.50 ម្ភ	Abnormal		-
50 L			0.00 kei			
Aug 14/23			Aug14/23 Aci	Aug14/23		Aug14/23
Au			Au	Au		Aug

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Environmental 360 Solutions Ltd. : E30000153 Received : 29 Aug 2023 640 Victoria Street : 02579120 Diagnosed : 30 Aug 2023 Cobourg, ON Accredited Laboratory Unique Number : 5632180 Diagnostician : Tatiana Sorkina CA K9A 5H5 Test Package : IND 2 (Additional Tests: KF, KV100, VI) Contact: Tatiana Sorkina To discuss this sample report, contact Customer Service at 1-800-268-2131. tsorkina@e360s.ca T: (800)263-3939 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. F: (905)373-4950