

# **OIL ANALYSIS REPORT**

#### Area [226.998.1008] Machine Id BLOW P1 PRESS

Component Hydraulic System

CHEVRON GEAR COMPOUND EP 220 (100 LTR)

## DIAGNOSIS

#### Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

# Wear

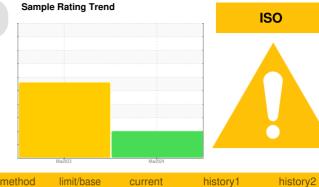
All component wear rates are normal.

### Contamination

There is a moderate amount of particulates (2 to 100 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	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0900181	WC0790179	
Sample Date		Client Info		22 Mar 2024	28 Mar 2023	
Machine Age	yrs	Client Info		6	1	
Oil Age	yrs	Client Info		6	1	
Oil Changed		Client Info		Filtered	Not Changd	
Sample Status				ABNORMAL	SEVERE	
CONTAMINATION	J	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	13	19	
Chromium	ppm	ASTM D5185(m)		0	0	
Nickel	ppm	ASTM D5185(m)	>20	0	0	
Titanium	ppm	ASTM D5185(m)	>20	0	0	
Silver		ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>20	u <1	2	
Lead	ppm	ASTM D5185(m) ASTM D5185(m)	>20	<1	2	
	ppm	ASTM D5185(m) ASTM D5185(m)		-	33	
Copper Tin	ppm	ASTM D5185(m) ASTM D5185(m)	>20 >20	15 0	33 <1	
	ppm	,	>20			
Antimony Vanadium	ppm	ASTM D5185(m)		0	0	
	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 2	history1 5	history2
	ppm ppm		limit/base			
Boron		ASTM D5185(m)	limit/base	2	5	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	2 0	5 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	2 0 0	5 0 0	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	2 0 0 0	5 0 0 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	2 0 0 0 <1	5 0 0 <1 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	2 0 0 <1 3	5 0 0 <1 <1 4	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	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)	limit/base	2 0 0 <1 3 155	5 0 0 <1 <1 4 156	
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)	limit/base	2 0 0 <1 3 155 25	5 0 0 <1 <1 4 156 43	
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)	limit/base	2 0 0 <1 3 155 25 5040	5 0 0 <1 <1 4 156 43 7307	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	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)		2 0 0 <1 3 155 25 5040 <1	5 0 0 <1 <1 4 156 43 7307 <1	
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)	limit/base	2 0 0 <1 3 155 25 5040 <1 current	5 0 0 <1 <1 4 156 43 7307 <1 history1	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	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)	limit/base	2 0 0 <1 3 155 25 5040 <1 current	5 0 0 <1 <1 4 156 43 7307 <1 history1 7	       history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	2 0 0 <1 3 155 25 5040 <1 current 5 <1	5 0 0 <1 <1 4 156 43 7307 <1 history1 7 4	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20	2 0 0 3 155 25 5040 <1 current 5 <1 <1	5 0 0 <1 <1 4 156 43 7307 <1 history1 7 4 1	      history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base >5000	2 0 0 ( 1 3 155 25 5040 <1 5040 <1 5 ( 1 ( 1 <1 <1 <1	5 0 0 <1 <1 4 156 43 7307 <1 <b>history1</b> 7 4 1 1 <b>history1</b>	     history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base >5000	2 0 0 1 3 155 25 5040 <1 current 5 <1 <1 <1 <1 <1 2 25 25 25 25 25 25 25 25 25 25 25 25 2	5 0 0 <1 <1 4 156 43 7307 <1 history1 7 4 1 1 history1 1 69346	     history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base >5000 >1300 >160	2 0 0 3 155 25 5040 <1 <i>current</i> 5 <1 <1 <1 <1 3 3 25 5040 <1 <1 3 25 5040 <1 25 5040 <1 25 5040 <1 25 5040 <1 4 25 5040 <1 4 25 5040 <1 4 3 25 5040 <1 4 3 4 5 5 5 4 5 5 4 5 5 5 5 4 5 5 5 5 5	5 0 0 <1 <1 4 156 43 7307 <1 <b>history1</b> 7 4 1 7 4 1 1 <b>history1</b> 8 69346 ▲ 12301	     history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D76477 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160	2 0 0 3 155 25 5040 <1 current 5 <1 <1 <1 <1 3 3 25 5040 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	5 0 0 <1 <1 4 156 43 7307 <1 <b>history1</b> 7 4 1 7 4 1 1 <b>history1</b> 4 1 1 69346 ▲ 12301 ▲ 1120	      history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	2 0 0 3 (1 3 155 25 5040 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 0 0 3 3 3 4 156 4 3 7307 3 4 7 3 7 3 4 1 1 1 1 69346 4 12301 4 12301 4 1120 4 300	       history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm   ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	2 0 0 3 (1 3 155 25 5040 <1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5 0 0 3 3 3 3 4 3 5 6 4 3 5 6 3 4 3 7 307 5 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7	      history2  history2  history2

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