

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id **420015** Component **Hydraulic System** Fluid **PETRO CANADA HYDREX MV 32 (--- GAL)**

Resample at the next service interval to monitor. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 2 test kits, this testkit

includes Particle Count to determine the ISO cleanliness of the fluid.

**WEAR** 

All component wear rates are normal.

RECOMMENDATION

## CONTAMINATION

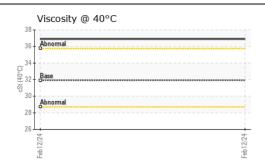
There is no indication of any contamination in the component(unconfirmed).

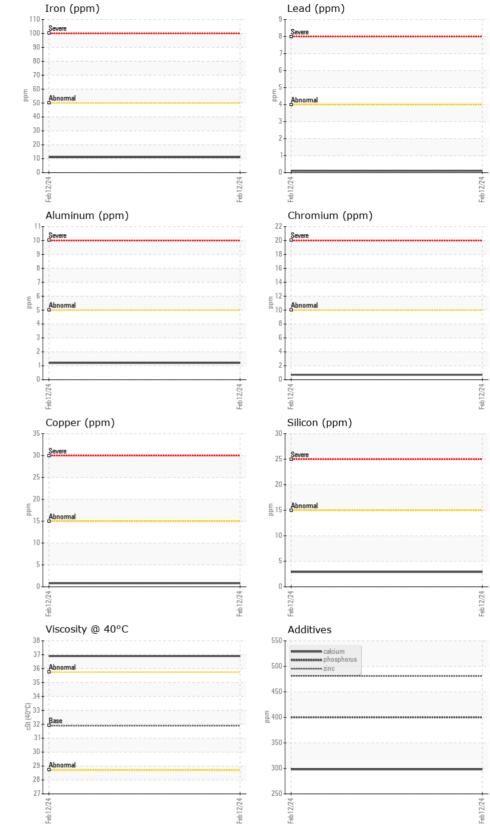
## FLUID CONDITION

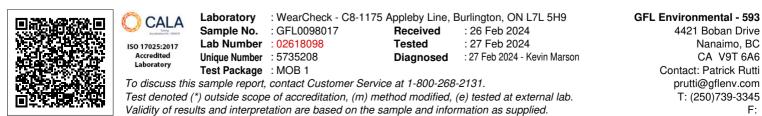
The oil viscosity is higher than typical. The condition of the oil is acceptable for the time in service.

Test  UOM  Method  Limit/An  Current  History1  History2    Sample Number  Client Info  I2 Feb 2024      Machine Age  hrs  Client Info  I2 Feb 2024      Machine Age  hrs  Client Info  5567      Filter Age  hrs  Client Info  S567      Filter Age  hrs  Client Info  Not Changd      Filter Anged  Client Info  Not Changd       Filter Changed  Client Info  Not Changd       Sample Status  Visual  Not Changd       Iron  ppm  ASTMD5185(m)  >50  11      Nickel  ppm  ASTMD5185(m)  >4  <1      Silver  ppm  ASTMD5185(m)  >4  1							
Sample Date  Client Info  12 Feb 2024     Machine Age  hrs  Client Info  5567     Dil Age  hrs  Client Info  5567     Filter Age  hrs  Client Info  5567     Dil Changed  Client Info  Not Chang     Filter Changed  Client Info  Not Chang     Filter Changed  Client Info  Not Chang     Sample Status  Visual      Iron  ppm  ASTM D5185(m)  >50  11     Nickel  ppm  ASTM D5185(m)  >10      Nickel  ppm  ASTM D5185(m)  >1      Silver  ppm  ASTM D5185(m)  >4  1      Aluminum  ppm  ASTM D5185(m)  >4  1      Vanadium  ppm  ASTM D5185(m)  >4  1	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine Age  hrs  Client Info  5567      Oil Age  hrs  Client Info  5567      Filter Age  hrs  Client Info  Not Changd      Oil Changed  Client Info  Not Changd      Filter Changed  Client Info  Not Changd      Sample Status  NORMAL       Iron  ppm  ASTM D5185(m)  >50  11      Nickel  ppm  ASTM D5185(m)  >4  <1      Silver  ppm  ASTM D5185(m)  >4  <1      Aluminum  ppm  ASTM D5185(m)  >55  1      Vanadum  ppm  ASTM D5185(m)  >4  0      Vanadum  ppm  ASTM D5185(m)  >4  0      Yellow Metal  scalar	Sample Number		Client Info		GFL0098017		
Oil Age  hrs  Client Info  5567      Filter Age  hrs  Client Info  5567      Oil Changed  Client Info  Not Changd      Filter Changed  Client Info  Not Changd      Sample Status  NORMAL      Iron  ppm  ASTMD5185(m)  >50  11      Chromium  ppm  ASTMD5185(m)  >10  <1      Nickel  ppm  ASTMD5185(m)  >4  <1      Silver  ppm  ASTMD5185(m)  >5  1      Lead  ppm  ASTMD5185(m)  >4  <1      Vanaduum  ppm  ASTMD5185(m)  >4  0      Valaduum  ppm  ASTMD5185(m)  >5  3      Valaduum  ppm  A	Sample Date		Client Info		12 Feb 2024		
Filter Age  hrs  Client Info  5567      Oil Changed  Client Info  Not Changd      Filter Changed  Client Info  Not Changd      Sample Status  NORMAL      Iron  ppm  ASTM D5185(m)  >50  11      Chromium  ppm  ASTM D5185(m)  >4  <1      Nickel  ppm  ASTM D5185(m)  >4  <1      Nickel  ppm  ASTM D5185(m)  >4  <1      Silver  ppm  ASTM D5185(m)  >5  1      Lead  ppm  ASTM D5185(m)  >4  <1      Vanaduiun  ppm  ASTM D5185(m)  >4  0      Vanaduiun  ppm  ASTM D5185(m)  >20  <1      Vanaduiun	Machine Age	hrs	Client Info		5567		
Oil Changed  Client Info  Not Changa     Filter Changed  Client Info  Not Changa     Sample Status  NORMAL      Iron  ppm  ASTM D5186(m) >50  11      Chromium  ppm  ASTM D5186(m) >10  <1      Nickel  ppm  ASTM D5186(m) >4  <1      Nickel  ppm  ASTM D5186(m) >5  1      Aluminum  ppm  ASTM D5186(m) >4  <1      Aluminum  ppm  ASTM D5186(m) >4  <1      Aluminum  ppm  ASTM D5186(m) >4  0      Vanadium  ppm  ASTM D5186(m) >4  0      Vanadium  ppm  ASTM D5186(m) >15  3      Vanadium  ppm  ASTM D5185(m) >15  3     Yellow Metal	Oil Age	hrs	Client Info		5567		
Filter Changed Sample Status  Client Info  Not Change NORMAL     Iron  ppm  ASTM D5185(m)  >50  11     Chromium  ppm  ASTM D5185(m)  >10  <1     Nickel  ppm  ASTM D5185(m)  >4  <1     Nickel  ppm  ASTM D5185(m)  >4  <1     Silver  ppm  ASTM D5185(m)  >5  1     Aluminum  ppm  ASTM D5185(m)  >5  1     Lead  ppm  ASTM D5185(m)  >5  1     Vanadium  ppm  ASTM D5185(m)  >1      Yellow Metal  scalar  Visual*  NONE  NONE     Silicon  ppm  ASTM D5185(m)  >1      Silicon  ppm  ASTM D5185(m)  >20  <1      Silicon  ppm  ASTM D5185(m)  >20  <	Filter Age	hrs	Client Info		5567		
Sample Status  NORMAL      Iron  ppm  ASTM D5185(m)  >50  11      Chromium  ppm  ASTM D5185(m)  >10  <1      Nickel  ppm  ASTM D5185(m)  >4  <1      Titanium  ppm  ASTM D5185(m)  >6  0      Aluminum  ppm  ASTM D5185(m)  >5  1      Aluminum  ppm  ASTM D5185(m)  >5  1      Aduminum  ppm  ASTM D5185(m)  >5  1      Vanadium  ppm  ASTM D5185(m)  >1  0      Yellow Metal  scalar  Visual*  NONE  NONE      Silicon  ppm  ASTM D5185(m)  >20  <1      Silicon  ppm  ASTM D5185(m)  >20  <1  <	Oil Changed		Client Info		Not Changd		
Iron  ppm  ASTM D5185(m)  >50  11     Chromium  ppm  ASTM D5185(m)  >10  <1     Nickel  ppm  ASTM D5185(m)  >4  <1     Nickel  ppm  ASTM D5185(m)  0      Titanium  ppm  ASTM D5185(m)  >5  1      Aluminum  ppm  ASTM D5185(m)  >5  1      Lead  ppm  ASTM D5185(m)  >4  <1      Copper  ppm  ASTM D5185(m)  >1       Vanadium  ppm  ASTM D5185(m)  >4  0      Vanadium  ppm  ASTM D5185(m)  >4  0	Filter Changed		Client Info		Not Changd		
Imp  ASTM D5185(m)  >10  <1	Sample Status				NORMAL		
Imp  ASTM D5185(m)  >10  <1							
Nickel  pm  ASTM D5185(m)  >4  <1	-						
Titanium  ppm  ASTM D5185(m)  0      Silver  ppm  ASTM D5185(m)  0      Aluminum  ppm  ASTM D5185(m)  >5  1      Lead  ppm  ASTM D5185(m)  >4  <1      Copper  ppm  ASTM D5185(m)  >1       Vanadium  ppm  ASTM D5185(m)  >4  0      White Metal  scalar  Visual*  NONE  NONE      Yellow Metal  scalar  Visual*  NONE  NONE      Silicon  ppm  ASTM D5185(m)  >1  S      Water  WC Method  >0.1  NEG      Silit  scalar  Visual*  NONE      Appearance  scalar  Visual*  NORH			. ,				
Silver  ppm  ASTM D5185(m)  0     Aluminum  ppm  ASTM D5185(m)  >5  1     Lead  ppm  ASTM D5185(m)  >4  <1     Copper  ppm  ASTM D5185(m)  >15  <1     Tin  ppm  ASTM D5185(m)  >4  0     Vanadium  ppm  ASTM D5185(m)  >4  0     White Metal  scalar  Visual*  NONE  NONE     Yellow Metal  scalar  Visual*  NONE  NONE      Silicon  ppm  ASTM D5185(m)  >15  3      Silicon  ppm  ASTM D5185(m)  >20  <1      Water  WC Method  >0.1  NEG       Sand/Dirt  scalar  Visual*  NONE       Appearance  scala			( )	>4			
Aluminum  ppm  ASTM D5185(m)  >5  1     Lead  ppm  ASTM D5185(m)  >4  <1     Copper  ppm  ASTM D5185(m)  >15  <1     Tin  ppm  ASTM D5185(m)  >1      Vanadium  ppm  ASTM D5185(m)  >4  0      White Metal  scalar  Visual*  NONE  NONE      Yellow Metal  scalar  Visual*  NONE  NONE      Silicon  ppm  ASTM D5185(m)  >15  3      Silicon  ppm  ASTM D5185(m)  >20  <1      Silit  scalar  Visual*  NONE  NONE      Debris  scalar  Visual*  NORML  NORML      Appearance  scalar  Visual*  NORML  NORML			· · /				
Lead  ppm  ASTM D5185(m)  >4  <1				-	-		
Copper  ppm  ASTM D5185(m)  >15  <1			( )				
Tin  ppm  ASTM D5185(m)  >4  0     Vanadium  ppm  ASTM D5185(m)  C  0      White Metal  scalar  Visual*  NONE  NONE      Yellow Metal  scalar  Visual*  NONE  NONE      Silicon  ppm  ASTM D5185(m)  >15  3      Silicon  ppm  ASTM D5185(m)  >20  <1			( )				
Vanadium  ppm  ASTM D5185(m)  Image: Constraint of the second of the se	••		( <i>1</i>				
White Metal  scalar  Visual*  NONE  NONE     Yellow Metal  scalar  Visual*  NONE  NONE      Silicon  ppm  ASTM D5185(m)  >15  3      Potassium  ppm  ASTM D5185(m)  >20  <1      Water  WC Method  >0.1  NEG       Silt  scalar  Visual*  NONE  NONE      Debris  scalar  Visual*  NONE  NONE      Sand/Dirt  scalar  Visual*  NORE  NORE      Appearance  scalar  Visual*  NORM  NORML      Odor  scalar  Visual*  NOR  NORML      Boron  ppm  ASTM D5185(m)  0  5      Molybdenum  ppm  A			( )	>4	-		
Yellow Metal  scalar  Visual*  NONE  NONE     Silicon  ppm  ASTM D5185(m)  >15  3      Potassium  ppm  ASTM D5185(m)  >20  <1      Water  WC Method  >0.1  NEG      Silt  scalar  Visual*  NONE  NONE      Debris  scalar  Visual*  NONE  NONE      Sand/Dirt  scalar  Visual*  NONE  NORE      Appearance  scalar  Visual*  NORML  NORML      Odor  scalar  Visual*  NORM  NORML      Sodium  ppm  ASTM D5185(m)  0  5      Boron  ppm  ASTM D5185(m)  0  0      Molybdenum  ppm  ASTM D5185(m) <td< th=""><th></th><th></th><th>· · /</th><th></th><th>-</th><th></th><th></th></td<>			· · /		-		
SiliconppmASTM D5185(m)>153PotassiumppmASTM D5185(m)>20<1WaterWC Method>0.1NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)05BoronppmASTM D5185(m)00ManganeseppmASTM D5185(m)00MagnesiumppmASTM D5185(m)50298PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)760988SulfurppmASTM D5185(m)760988		scalar			-		
PotassiumppmASTM D5185(m)>20<1	Yellow Metal	scalar	Visual*	NONE	NONE		
WaterWC Method>0.1NEGSiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*NORMLNORMLSodiumppmASTM D5185(m)05BoronppmASTM D5185(m)00MolybdenumppmASTM D5185(m)00MagnesiumppmASTM D5185(m)10MagnesiumppmASTM D5185(m)50298PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)760988SulfurppmASTM D5185(m)760988	Silicon	ppm	ASTM D5185(m)	>15	3		
SiltscalarVisual*NONENONEDebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMNORMLOdorscalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.1NEGSodiumppmASTM D5185(m)05BoronppmASTM D5185(m)00MalybdenumppmASTM D5185(m)00ManganeseppmASTM D5185(m)10CalciumppmASTM D5185(m)50298PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)760988SulfurppmASTM D5185(m)760988	Potassium	ppm	ASTM D5185(m)	>20	<1		
DebrisscalarVisual*NONENONESand/DirtscalarVisual*NONENONEAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLDdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.1NEGSodiumppmASTM D5185(m)05BoronppmASTM D5185(m)00BariumppmASTM D5185(m)00MolybdenumppmASTM D5185(m)10MagnesiumppmASTM D5185(m)10PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)430481SulfurppmASTM D5185(m)760988	Water		WC Method	>0.1	NEG		
Sand/DirtscalarVisual*NONENOREAppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.1NEGSodiumppmASTM D5185(m)05BoronppmASTM D5185(m)00BariumppmASTM D5185(m)00MolybdenumppmASTM D5185(m)10MagnesiumppmASTM D5185(m)50298PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)430481SulfurppmASTM D5185(m)760988	Silt	scalar	Visual*	NONE	NONE		
AppearancescalarVisual*NORMLNORMLOdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.1NEGSodiumppmASTM D5185(m)2BoronppmASTM D5185(m)05BariumppmASTM D5185(m)00MolybdenumppmASTM D5185(m)00ManganeseppmASTM D5185(m)10MagnesiumppmASTM D5185(m)50298PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)430481SulfurppmASTM D5185(m)760988	Debris	scalar	Visual*	NONE	NONE		
OdorscalarVisual*NORMLNORMLEmulsified WaterscalarVisual*>0.1NEGSodiumppmASTM D5185(m)2BoronppmASTM D5185(m)05BariumppmASTM D5185(m)00MolybdenumppmASTM D5185(m)00ManganeseppmASTM D5185(m)10MagnesiumppmASTM D5185(m)50298PhosphorusppmASTM D5185(m)330400ZincppmASTM D5185(m)430481SulfurppmASTM D5185(m)760988	Sand/Dirt	scalar	Visual*	NONE	NONE		
Emulsified Water  scalar  Visual*  >0.1  NEG      Sodium  ppm  ASTM D5185(m)  2      Boron  ppm  ASTM D5185(m)  0  5      Barium  ppm  ASTM D5185(m)  0  0      Molybdenum  ppm  ASTM D5185(m)  0  0      Manganese  ppm  ASTM D5185(m)  1  0      Magnesium  ppm  ASTM D5185(m)  50  298      Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481	Appearance	scalar	Visual*	NORML	NORML		
Sodium  ppm  ASTM D5185(m)  2     Boron  ppm  ASTM D5185(m)  0  5      Barium  ppm  ASTM D5185(m)  0  0  5      Barium  ppm  ASTM D5185(m)  0  0      Molybdenum  ppm  ASTM D5185(m)  0  0      Manganese  ppm  ASTM D5185(m)  1  0      Magnesium  ppm  ASTM D5185(m)  0  2      Calcium  ppm  ASTM D5185(m)  50  298      Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Odor	scalar	Visual*	NORML	NORML		
Boron  ppm  ASTM D5185(m)  0  5     Barium  ppm  ASTM D5185(m)  0  0      Molybdenum  ppm  ASTM D5185(m)  0  0      Manganese  ppm  ASTM D5185(m)  1  0      Magnesium  ppm  ASTM D5185(m)  0  2      Calcium  ppm  ASTM D5185(m)  50  298      Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Emulsified Water	scalar	Visual*	>0.1	NEG		
Boron  ppm  ASTM D5185(m)  0  5     Barium  ppm  ASTM D5185(m)  0  0      Molybdenum  ppm  ASTM D5185(m)  0  0      Manganese  ppm  ASTM D5185(m)  1  0      Magnesium  ppm  ASTM D5185(m)  0  2      Calcium  ppm  ASTM D5185(m)  50  298      Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Sodium	maa	ASTM D5185(m)		2		
Barium  ppm  ASTM D5185(m)  0  0     Molybdenum  ppm  ASTM D5185(m)  0  0      Manganese  ppm  ASTM D5185(m)  1  0      Magnesium  ppm  ASTM D5185(m)  1  0      Calcium  ppm  ASTM D5185(m)  50  298      Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988			· · /	0			
Manganese  ppm  ASTM D5185(m)  1  0     Magnesium  ppm  ASTM D5185(m)  0  2      Calcium  ppm  ASTM D5185(m)  50  298      Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988			· · /				
Magnesium  ppm  ASTM D5185(m)  0  2     Calcium  ppm  ASTM D5185(m)  50  298     Phosphorus  ppm  ASTM D5185(m)  330  400     Zinc  ppm  ASTM D5185(m)  430  481     Sulfur  ppm  ASTM D5185(m)  760  988	Molybdenum	ppm	ASTM D5185(m)	0	0		
Calcium  ppm  ASTM D5185(m)  50  298     Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Manganese	ppm	ASTM D5185(m)	1	0		
Calcium  ppm  ASTM D5185(m)  50  298     Phosphorus  ppm  ASTM D5185(m)  330  400      Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Magnesium	ppm	ASTM D5185(m)	0	2		
Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Calcium		ASTM D5185(m)	50	298		
Zinc  ppm  ASTM D5185(m)  430  481      Sulfur  ppm  ASTM D5185(m)  760  988	Phosphorus		ASTM D5185(m)	330	400		
	Zinc		ASTM D5185(m)	430	481		
	Sulfur	ppm	ASTM D5185(m)	760	988		
				21.0	00.0		

Contact/Location: Patrick Rutti - GFL593







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