

WL141

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

00

KEMP QUARRIES / PRYOR STONE [68156]

Component Hydraulic System

PETRO CANADA HYDREX AW 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Pm4 performed. All oil samples taken. All oils, and all filters changed.)

WEAR

All component wear rates are normal.

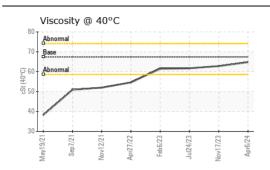
CONTAMINATION

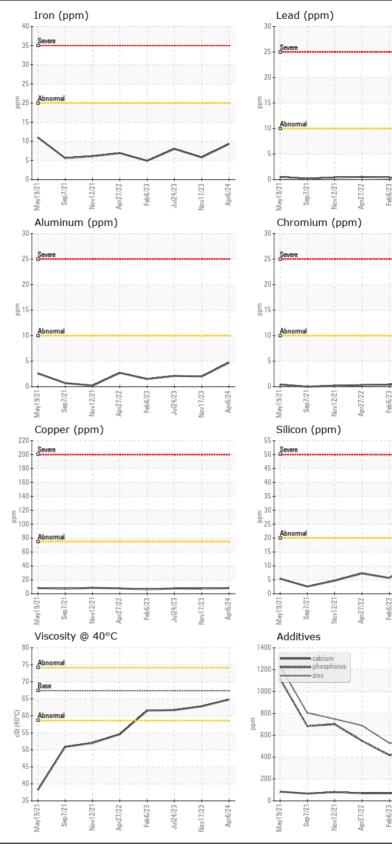
There is no indication of any contamination in the oil.

FLUID CONDITION

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

TestUOMMethodLimitAbCurrentHistory1History2Sample NumberCClient IntoFA0086643PA0084333PA0084333Sample DateCClient IntoG6 Apr 202417 Nov 202324 Jul 2023Machine AgehrsClient IntoZe3302574425250Oil AgehrsClient IntoZe3302174425250Filter AgehrsClient IntoChangedOil AddedOil AddedFilter AnagedIcient IntoChangedOil AddedAddedSample StatusClient IntoKnorMALNORMALNORMALIronpmASTM D5185>1004<1<1<NickelpmASTM D5185>1004<1<1<NickelpmASTM D5185>1004<10<1SilverpmASTM D5185>1004<100GopperpmASTM D5185>1004<10<1GopperpmASTM D5185>1004<10<1MachinumpmASTM D5185>1004<10<1NoneASTM D5185>1004<10<1<1SilverpmASTM D5185>1004<10<1MachinumpmASTM D5185>1004<10<1SilverpmASTM D5185>1004<10<1MachinumpmASTM D5185>1004<10<1<							
Sample DateClient InfoIo66 Apr 202017 Nov 202024 Jul 2020Machine AgehrsClient Info263302574425250Oil AgehrsClient Info2223163725250Filter AgehrsClient Info586494508Oil ChangedIClient InfoChangedChangedChangedFilter ChangedIClient InfoFilter ChangedOil AddedChangedSample StatusClient InfoPNoRMALNORMALNORMALIronppmASTM D5185>20968ChromiumppmASTM D5185>10f.100NickelppmASTM D5185>10f.100SilverppmASTM D5185>10f.100AluminumppmASTM D5185>10f.100AluminumppmASTM D5185>10f.100VanadiumppmASTM D5185>10f.100VanadiumppmASTM D5185>10f.100VanadiumppmASTM D5185>10f.100VanadiumppmASTM D5185>20f.100VanadiumppmASTM D5185>20f.100VanadiumppmASTM D5185>20f.100VanadiumppmASTM D5185Sof.20 <td< th=""><th>Test</th><th>UOM</th><th>Method</th><th>Limit/Abn</th><th>Current</th><th>History1</th><th>History2</th></td<>	Test	UOM	Method	Limit/Abn	Current	History1	History2
Machine AgehrsClient InfoJead 28302574425250Oil AgehrsClient Info2223163725250Filter AgehrsClient Info586494508Oil ChangedClient InfoChangedOil AddedOil AddedFilter ChangedClient InfoPChangedOil AddedOil AddedSample StatusClient InfoPChangedNORMALNORMALIronppmASTM D5185m>20968ChromiumppmASTM D5185m>101<1<1NickelppmASTM D5185m>101<1<1NickelppmASTM D5185m>10400SilverppmASTM D5185m>105222LeadppmASTM D5185m>105878TinppmASTM D5185m>104000VanadiumppmASTM D5185m>20878Yellow Metalscalar'VisualNONENONENONENONESiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013<	Sample Number		Client Info		PCA0086643	PCA0084335	PCA0084543
Oil Age Filter AgeInsoClient InfoImageS223163725250Filter AgeInsoClient Info586494508Oil ChangedClient InfoChangedOil AddedOil AddedFilter ChangedImageClient InfoChangedChangedChangedSample StatusTurnNORMALNORMALNORMALNORMALIronppmASTM0518m200968ChromiumppmASTM0518m101<1<1NickelppmASTM0518m100<100TitaniumppmASTM0518m100<100AluminumppmASTM0518m100<100AluminumppmASTM0518m>100<100CopperppmASTM0518m>100<100VandatiumppmASTM0518m>100<100Value Metalscalar'VisualNONEASTM00Value Metalscalar'VisualNONEINONENONENONESiliconppmASTM0518mscala'NONENONENONENONESiliconppmASTM0518mscala'NONENONENONENONESiliconppmASTM0518mscala'NONENONENONENONESiliconppmASTM0518mNONEINONENONENONESilicon	Sample Date		Client Info		06 Apr 2024	17 Nov 2023	24 Jul 2023
Filter AgehrsClient Info586494508Oil ChangedClient InfoChangedOil AddedOil AddedOil AddedSamples ChangedNORMALNORMALNORMALNORMALIronppmASTM D5185>20968ChangedNORMALNORMALIronppmASTM D5185>2096831<1<1<1<1NickelppmASTM D5185>101<10<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1<1	Machine Age	hrs	Client Info		26330	25744	25250
Oli ChangedClient InfoKnagedChangedOil AddedChangedCal </th <th>Oil Age</th> <th>hrs</th> <th>Client Info</th> <th></th> <th>2223</th> <th>1637</th> <th>25250</th>	Oil Age	hrs	Client Info		2223	1637	25250
Filter Changed Sample StatusClient InfoChanged NoRMALChanged NoRMALChanged NoRMALChanged NoRMALIronppmASTM D5185>20968ChromiumppmASTM D5185>101<1<1NickelppmASTM D5185>10<100TitaniumppmASTM D5185>10<10<1SilverppmASTM D5185>10<10<1SilverppmASTM D5185>10<10<1CopperppmASTM D5185>10<10<1QuandumppmASTM D5185>10<10<1VanadumppmASTM D5185>10<10<1VanadumppmASTM D5185>10<10<1VanadumppmASTM D5185>10<10<1VanadumppmASTM D5185>2013911VanadumppmASTM D5185>2013911PotassiumppmASTM D5185>2013911PotassiumppmASTM D5185>2013910Siltscalar*VisualNONENONENONENONESiltonppmASTM D5185NONENONENONENONESodurvisualNONENONENONENONENONESodurvisualNOR	Filter Age	hrs	Client Info		586	494	508
Sample StatusNORMALNORMALNORMALIronppmASTM D5185>200968ChromiumppmASTM D5185>1001<1<1NickelppmASTM D5185>100<10.00TitaniumppmASTM D5185<10<10.0<1SilverppmASTM D5185<10<10.0<1AluminumppmASTM D5185>10<10.0<1LeadppmASTM D5185>10<10.0<1CopperppmASTM D5185>10<10.0<1VanadiumppmASTM D5185>10<10.0<1VanadiumppmASTM D5185>10<10.0<1Valend Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185>2013911PotassiumppmASTM D5185>20220.00SiliconppmASTM D5185>2013911PotassiumppmASTM D5185>2013911Potassiumscalar*VisualNONENONENONENONESilitscalar*VisualNONENONENONENONENONESodurvisualNORNORENORENORENORENORESilitscalar*VisualNORNORENORE<	Oil Changed		Client Info		Changed	Oil Added	Oil Added
IronppmASTM D5185m>209968ChromiumppmASTM D5185m>101<1<1<1NickelppmASTM D5185m>10<100TitaniumppmASTM D5185m<0<10<1SilverppmASTM D5185m<000<1LeadppmASTM D5185m>10<100CopperppmASTM D5185m>10<100CopperppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<10<1VisualNONENONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911SiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911Sociar*VisualNONENONENONENONESiliconscalar*VisualNONENONENONENONESociar*VisualNONENONENONENONENONE<	Filter Changed		Client Info		Changed	Changed	Changed
ChromiumppmASTM D5185m>101<1	Sample Status				NORMAL	NORMAL	NORMAL
ChromiumppmASTM D5185m>101<1					•		
NickelppmASTM D5185m>10<1	-				-		
TitaniumppmASTM D5185m<					-		
SilverppmASTM D5185m·0000AluminumppmASTM D5185m>10522LeadppmASTM D5185m>10<100CopperppmASTM D5185m>75878TinppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<10<1White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONEYellow MetalppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013911PotassiumppmASTM D5185m>2013NONENONESaid/Dirtscalar*VisualNONENONENONENONESadd/Dirtscalar*VisualNORNORMNORMNORMLAppearancescalar*VisualNORMNORMLNORMLNORMLGoronppmASTM D5185m0100BoronppmASTM D5185m0100BariumppmASTM D5185m01 <t< th=""><th></th><th></th><th></th><th>>10</th><th></th><th></th><th></th></t<>				>10			
AluminumppmASTM D5185m>10522LeadppmASTM D5185m>10<100CopperppmASTM D5185m>75878TinppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<10<1White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>20200WaterVC Method>0.1NEGNEGNEGSilitscalar*VisualNONENONENONENONESodarvisualNONENONENONENONENONESand/Dirtscalar*VisualNORNORENONENORHAppearancescalar*VisualNORNORMLNORMLNORMLCdorscalar*VisualNORNORMLNORMLNORMLBoronppmASTM D5185m0100BariumppmASTM D5185m0100ManganeseppmASTM D5185m0100ManganeseppmASTM D5185m0475162CalciumppmASTM D5185m0475162CalciumppmASTM D5185m0475162<							
LeadppmASTM D5185m>10<1				. 10	-		
CopperppmASTM D5185m>75878TinppmASTM D5185m>10<100VanadiumppmASTM D5185m>10<10<1White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>20200WaterWC Method>0.1NEGNONENONESilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENORHLAppearancescalar*VisualNORMLNORMLNORMLNORMLCdorscalar*VisualNORMLNORMLNORMLNORMLGoronppmASTM D5185m0100BariumppmASTM D5185m0<100MalganeseppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435SodiumppmASTM D5185m330513467501SudiumppmASTM D5185m330513467501MalganesiumppmASTM D5185m360<							
TinppmASTM D5185m>10<1							
VanadiumppmASTM D5185mI<1					-		
White Metalscalar*VisualNONENONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>20200WaterWC Method>0.1NEGNEGNEGSilitscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLBoronppmASTM D5185m0100BariumppmASTM D5185m010<1ManganeseppmASTM D5185m0410<1ManganeseppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m760114510661347				>10			÷
Yellow Metalscalar*VisualNONENONENONENONENONESiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>20200WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLOdorscalar*VisualNORMNORMLNORMLNORMLBoronppmASTM D5185m0100BariumppmASTM D5185m0100ManganeseppmASTM D5185m04100MagnesiumppmASTM D5185m50928269PhosphorusppmASTM D5185m3303334407435ZincppmASTM D5185m330513467501SulfurppmASTM D5185m760114510661347				NONE			
SiliconppmASTM D5185m>2013911PotassiumppmASTM D5185m>20200WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLGoronscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m0100BariumppmASTM D5185m010MaganeseppmASTM D5185m0<10MagnesiumppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m330513467501SulfurppmASTM D5185m760114510661347							
PotassiumppmASTM D5185m>20200WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLCodorscalar*VisualNORMLNORMLNORMLNORMLSodiumppmASTM D5185m0.1NEGNEGNEGSodiumppmASTM D5185m0000BariumppmASTM D5185m0100ManganeseppmASTM D5185m0<100MagnesiumppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m760114510661347		scalar	visual	NONE		NONE	NONE
WaterWC Method>0.1NEGNEGNEGSiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m00000BariumppmASTM D5185m010MolybdenumppmASTM D5185m0<100MagnesiumppmASTM D5185m50928226969PhosphorusppmASTM D5185m330393407435SilfurppmASTM D5185m7601145106611347	Silicon	ppm	ASTM D5185m	>20	13	9	11
Siltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m0100BoronppmASTM D5185m0100BariumppmASTM D5185m0100ManganeseppmASTM D5185m0<100MagnesiumppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m7601145106611347	Potassium	ppm	ASTM D5185m	>20	2	0	0
Debrisscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNORENONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m0.10000BaronppmASTM D5185m0.410000MalganeseppmASTM D5185m0.410000MagnesiumppmASTM D5185m0.4475116269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m7601145106611347	Water		WC Method	>0.1	NEG	NEG	NEG
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m0000BoronppmASTM D5185m0000BariumppmASTM D5185m0100MolybdenumppmASTM D5185m0<100MagnesiumppmASTM D5185m041700PhosphorusppmASTM D5185m509282269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m760114510661347	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORML<	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Odorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m0.1321BoronppmASTM D5185m0000BariumppmASTM D5185m0100MolybdenumppmASTM D5185m0<10<1ManganeseppmASTM D5185m0<100MagnesiumppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m760114510661347	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Waterscalar*Visual>0.1NEGNEGNEGSodiumppmASTM D5185m321BoronppmASTM D5185m0000BariumppmASTM D5185m0100MolybdenumppmASTM D5185m0<10<1ManganeseppmASTM D5185m0<100MagnesiumppmASTM D5185m0<100CalciumppmASTM D5185m50928269PhosphorusppmASTM D5185m330393407435ZincppmASTM D5185m430513467501SulfurppmASTM D5185m760114510661347	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Sodium ppm ASTM D5185m 3 2 1 Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 1 0 0 Molybdenum ppm ASTM D5185m 0 1 0 0 Manganese ppm ASTM D5185m 0 <1 0 0 Magnesium ppm ASTM D5185m 0 <1 0 0 Phosphorus ppm ASTM D5185m 0 <1 0 0 Phosphorus ppm ASTM D5185m 0 <1 0 0 Phosphorus ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 <	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 1 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 <1 Manganese ppm ASTM D5185m 0 <1 0 <1 Magnesium ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 0 47 511 62 Phosphorus ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG
Boron ppm ASTM D5185m 0 0 0 0 Barium ppm ASTM D5185m 0 1 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 <1 Manganese ppm ASTM D5185m 0 <1 0 <1 Magnesium ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 0 47 511 62 Phosphorus ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347	Sodium	ppm	ASTM D5185m		3	2	1
Barium ppm ASTM D5185m 0 1 0 0 Molybdenum ppm ASTM D5185m 0 <1 0 <1 Manganese ppm ASTM D5185m 0 <1 0 <1 Magnesium ppm ASTM D5185m 0 <1 0 0 Calcium ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347			ASTM D5185m	0	0	0	0
Manganese ppm ASTM D5185m 0 <1	Barium		ASTM D5185m	0	1	0	0
Magnesium ppm ASTM D5185m 0 47 51 62 Calcium ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347	Molybdenum	ppm	ASTM D5185m	0	<1	0	<1
Magnesium ppm ASTM D5185m 0 47 51 62 Calcium ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347	Manganese		ASTM D5185m	0	<1	0	0
Calcium ppm ASTM D5185m 50 92 82 69 Phosphorus ppm ASTM D5185m 330 393 407 435 Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347	Magnesium		ASTM D5185m	0	47	51	62
Zinc ppm ASTM D5185m 430 513 467 501 Sulfur ppm ASTM D5185m 760 1145 1066 1347	-		ASTM D5185m	50	92	82	69
Sulfur ppm ASTM D5185m 760 1145 1066 1347	Phosphorus	ppm	ASTM D5185m	330	393	407	435
	Zinc	ppm	ASTM D5185m	430	513	467	501
Visc @ 40°C cSt ASTM D445 67.4 64.8 62.8 61.7	Sulfur	ppm	ASTM D5185m	760	1145	1066	1347







Jul24/23

174/73

lov17/23

Anr6/74

or6/74

Vov17/23 -

Apr6/24

Jul24/23