

Area (351064)

122398-1216 Component Swing Drive

## PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor.

## **WEAR**

All component wear rates are normal.

## CONTAMINATION

There is no indication of any contamination in the oil.

## **FLUID CONDITION**

Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

Sample Number         Client Info         LH0281246         LH0222594            Machine Age         hrs         Client Info         5387         584            Machine Age         hrs         Client Info         0         0            Oil Age         hrs         Client Info         0         0            Oil Changed         rcs         Client Info         0         0            Oil Changed         Client Info         Changed         Changed            Filter Changed         Client Info         N/A         N/A            Sample Status         Client Info         N/A         N/A            Iron         ppm         ASTM05165(m)         >15         2         3            Iron         ppm         ASTM05165(m)         >5         <1         <1            Iron         ppm         ASTM05165(m)         >5         <1         <1            Iron         ppm         ASTM05165(m)         >5         <1         <1            Silver         ppm         ASTM05165(m)         >5         <1 <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
Sample DateClient InfoO7 Feb 202420 Oct 2021Machine AgehrsClient Info5387584Oil AgehrsClient Info00Filter AgehrsClient InfoChangedChangedOil ChangedClient InfoN/AN/AFilter ChangedClient InfoN/AN/ASample StatusNORMALNORMALNORMALIronppmASTM 05185(m)>1200191421ChromiumppmASTM 05185(m)>5<1<1NickelppmASTM 05185(m)>5<1<1AluminumppmASTM 05185(m)>5<1<1AluminumppmASTM 05185(m)>5<1<1AgeppmASTM 05185(m)>5<1<1AluminumppmASTM 05185(m)>5<1<1AgeppmASTM 05185(m)>5<1<1VanadiumppmASTM 05185(m)>5<1<1Yellow MetalscalarYisual*NONENONENONESiliconppmASTM 05185(m)>101<Yellow MetalscalarYisual*NONENONENONESiliconppmASTM 05185(m)>20<11Yellow M						,	,
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Filter Changed Sample StatusClient InfoN/AN/ANORMALNORMALNORMALIronppmASTM D5185(m)>12001914/21ChromiumppmASTM D5185(m)>5<1<1NickelppmASTM D5185(m)>5<1<1TitaniumppmASTM D5185(m)>5<1<1AluminumppmASTM D5185(m)>5<1<11AluminumppmASTM D5185(m)>8<11LeadppmASTM D5185(m)>8<11CopperppmASTM D5185(m)>5<12VanadiumppmASTM D5185(m)>15<12VanadiumppmASTM D5185(m)>1012Yellow MetalscalarVisual*NONENONENONESiliconppmASTM D5185(m)>1012SiliconppmASTM D5185(m)>1012SiliconppmASTM D5185(m)>20<11SoliturscalarVisual*NONENONENONESiliconppmASTM D5185(m)>0<11SoliturscalarVisual*NONENONENONESoliturscalarVisual*NONENORMNORM	č					Changed	
Sample StatusNORMALNORMALIronppmASTM D5185(m)>1200191421ChromiumppmASTM D5185(m)>523NickelppmASTM D5185(m)>5<1<1TitaniumppmASTM D5185(m)>500SilverppmASTM D5185(m)>5<1<11AluminumppmASTM D5185(m)>5<1<11LeadppmASTM D5185(m)>8<11CopperppmASTM D5185(m)>5<12VanadiumppmASTM D5185(m)>15<12VanadiumppmASTM D5185(m)>15<12Yellow MetalscalarVisual*NONENONENONESiliconppmASTM D5185(m)>1012Yellow MetalscalarVisual*NONENONENONESiliconppmASTM D5185(m)>20<11SoliconppmASTM D5185(m)>20<11SiliconppmASTM D5185(m)>20<11SoliconppmASTM D5185(m)>20<11SoliconppmASTM D5185(m)>20<11SoliconppmASTM D5185(m)NORMNORM<	-				•	Ū	
Iron         ppm         ASTM D5185(m)         >1200         191         421	Ũ						
Chromium         ppm         ASTM D5185(m)         >15         2         3            Nickel         ppm         ASTM D5185(m)         >5         <1         <1            Titanium         ppm         ASTM D5185(m)         >5         0         0            Silver         ppm         ASTM D5185(m)         >5         <1         <1            Aluminum         ppm         ASTM D5185(m)         >5         <1         <1            Lead         ppm         ASTM D5185(m)         >8         <1         1            Copper         ppm         ASTM D5185(m)         >325         15         43            Vanadium         ppm         ASTM D5185(m)         >15         <1         2            Vanadium         ppm         ASTM D5185(m)         >10         0         0            Vanadium         ppm         ASTM D5185(m)         >10         1         2            Yellow Metal         scalar         Visual*         NONE         NONE         NONE            Silicon         ppm         ASTM D5185(m) </th <th>·····</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	·····						
Nickel         ppm         ASTM D5185(m)         >5         <1	Iron	ppm	ASTM D5185(m)	>1200	191	421	
Titanium         ppm         ASTM D5185(m)         >5         0         0            Silver         ppm         ASTM D5185(m)         >5         <1         <1            Aluminum         ppm         ASTM D5185(m)         >5         <1         <1            Lead         ppm         ASTM D5185(m)         >8         <1         1            Copper         ppm         ASTM D5185(m)         >8         <1         1            Vanadium         ppm         ASTM D5185(m)         >325         15         433            Vanadium         ppm         ASTM D5185(m)         >15         <1         2            Vanadium         ppm         ASTM D5185(m)         >10         0         0            White Metal         scalar         Visual*         NONE         NONE         NONE            Yellow Metal         scalar         Visual*         NONE         NONE         NONE            Silicon         ppm         ASTM D5185(m)         >20         <1         1            Debris         scalar         Vis	Chromium	ppm	ASTM D5185(m)	>15	2	3	
Silver         ppm         ASTM D5185(m)         0         <1	Nickel	ppm	ASTM D5185(m)	>5	<1	<1	
Aluminum         ppm         ASTM D5165(m)         >5         <1	Titanium	ppm	ASTM D5185(m)	>5	0	0	
LeadppmASTM D5185(m)>8<1	Silver	ppm	ASTM D5185(m)		0	<1	
Copper         ppm         ASTM D5185(m)         >325         15         43            Tin         ppm         ASTM D5185(m)         >15         <1         2            Vanadium         ppm         ASTM D5185(m)         0         0            White Metal         scalar         Visual*         NONE         VLITE         NONE            Yellow Metal         scalar         Visual*         NONE         NONE         NONE            Silicon         ppm         ASTM D5185(m)         >10         1         2            Potassium         ppm         ASTM D5185(m)         >20         <1         1            Water         WC Method         >0.2         NEG         NEG            Silt         scalar         Visual*         NONE         NONE            Debris         scalar         Visual*         NONE         NORM            Appearance         scalar         Visual*         NORML         NORML            Godor         scalar         Visual*         NORML         NORML         NORML	Aluminum	ppm	ASTM D5185(m)	>5	<1	<1	
TinppmASTM D5185(m)>15<1	Lead	ppm	ASTM D5185(m)	>8	<1	1	
VanadiumppmASTM D5185(m)00White MetalscalarVisual*NONEVLITENONEYellow MetalscalarVisual*NONENONENONENONEYellow MetalscalarVisual*NONENONENONESiliconppmASTM D5185(m)>1012PotassiumppmASTM D5185(m)>20<11WaterWC Method>0.2NEGNEGSiltscalarVisual*NONENONENONEDebrisscalarVisual*NONENONENONESand/DirtscalarVisual*NONENORMLNORMLAppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)1<17MalganeseppmASTM D5185(m)14MagnesiumppmASTM D5185(m)14MagnesiumppmASTM D5185(m)14	Copper	ppm	ASTM D5185(m)	>325	15	43	
White MetalscalarVisual*NONEVLITENONEYellow MetalscalarVisual*NONENONENONESiliconppmASTM D5185(m)>1012PotassiumppmASTM D5185(m)>20<11WaterWC Method>0.2NEGNEGSilitscalarVisual*NONENONENONEDebrisscalarVisual*NONENONEVLITESand/DirtscalarVisual*NONENONENONEAppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)1<17MalganeseppmASTM D5185(m)14ManganeseppmASTM D5185(m)14MagnesiumppmASTM D5185(m)7514	Tin	ppm	ASTM D5185(m)	>15	<1	2	
Yellow MetalscalarVisual*NONENONENONESiliconppmASTM D5185(m)>1012PotassiumppmASTM D5185(m)>20<11WaterWC Method>0.2NEGNEGSilitscalarVisual*NONENONENONEDebrisscalarVisual*NONENONEVLITESand/DirtscalarVisual*NONENONENONEAppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)1<17MolybdenumppmASTM D5185(m)14ManganeseppmASTM D5185(m)7514	Vanadium	ppm	ASTM D5185(m)		0	0	
SiliconppmASTM D5185(m)>1012PotassiumppmASTM D5185(m)>20<11WaterWC Method>0.2NEGNEGSiltscalarVisual*NONENONENONEDebrisscalarVisual*NONENONEVLITESand/DirtscalarVisual*NONENONENONEAppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLEmulsified WaterscalarVisual*NORMLNORMLNEGSodiumppmASTM D5185(m)328354BariumppmASTM D5185(m)1<17MolybdenumppmASTM D5185(m)14MagnesiumppmASTM D5185(m)7514	White Metal	scalar	Visual*	NONE	VLITE	NONE	
PotassiumppmASTM D5185(m)>20<1	Yellow Metal	scalar	Visual*	NONE	NONE	NONE	
PotassiumppmASTM D5185(m)>20<1	Silicon	maa	ASTM D5185(m)	>10	1	2	
WaterWC Method>0.2NEGNEGSiltscalarVisual*NONENONENONEDebrisscalarVisual*NONENONEVLITESand/DirtscalarVisual*NONENONENONEAppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGNEGSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)1 <f1< td="">4MolybdenumppmASTM D5185(m)14MagnesiumppmASTM D5185(m)14MagnesiumppmASTM D5185(m)7514</f1<>	Potassium		( )	>20	<1	1	
DebrisscalarVisual*NONENONEVLITESand/DirtscalarVisual*NONENONENONEAppearancescalarVisual*NORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGNEGSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)1<17MolybdenumppmASTM D5185(m)14MagnesiumppmASTM D5185(m)14MagnesiumppmASTM D5185(m)7514	Water		· · /	>0.2	NEG	NEG	
Sand/DirtscalarVisual*NONENONENONEAppearancescalarVisual*NORMLNORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGNEGSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)1<17MalybdenumppmASTM D5185(m)10<1ManganeseppmASTM D5185(m)14MagnesiumppmASTM D5185(m)12<1CalciumppmASTM D5185(m)7514	Silt	scalar	Visual*	NONE	NONE	NONE	
AppearancescalarVisual*NORMLNORMLNORMLNORMLOdorscalarVisual*NORMLNORMLNORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGNEGSodiumppmASTM D5185(m)<14BoronppmASTM D5185(m)328354BariumppmASTM D5185(m)1<17MolybdenumppmASTM D5185(m)14ManganeseppmASTM D5185(m)14MagnesiumppmASTM D5185(m)12<1CalciumppmASTM D5185(m)7514	Debris	scalar	Visual*	NONE	NONE	VLITE	
OdorscalarVisual*NORMLNORMLNORMLNORMLEmulsified WaterscalarVisual*>0.2NEGNEGSodiumppmASTM D5185(m)328354BoronppmASTM D5185(m)328354BariumppmASTM D5185(m)1<17MolybdenumppmASTM D5185(m)14ManganeseppmASTM D5185(m)14MagnesiumppmASTM D5185(m)12<1CalciumppmASTM D5185(m)7514	Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Emulsified Water         scalar         Visual*         >0.2         NEG         NEG            Sodium         ppm         ASTM D5185(m)         <         <1         4            Boron         ppm         ASTM D5185(m)         328         35         4            Barium         ppm         ASTM D5185(m)         1         <1         7            Molybdenum         ppm         ASTM D5185(m)         1         0         <1            Manganese         ppm         ASTM D5185(m)         1         4            Magnesium         ppm         ASTM D5185(m)         1         2         <1            Calcium         ppm         ASTM D5185(m)         7         5         14	Appearance	scalar	Visual*	NORML	NORML	NORML	
Sodium         ppm         ASTM D5185(m)         <1	Odor	scalar	Visual*	NORML	NORML	NORML	
Boron         ppm         ASTM D5185(m)         328         35         4            Barium         ppm         ASTM D5185(m)         1         <1         7            Molybdenum         ppm         ASTM D5185(m)         1         <1         7            Manganese         ppm         ASTM D5185(m)         1         4            Magnesium         ppm         ASTM D5185(m)         1         2         <1            Calcium         ppm         ASTM D5185(m)         7         5         14	Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	
Boron         ppm         ASTM D5185(m)         328         35         4            Barium         ppm         ASTM D5185(m)         1         <1         7            Molybdenum         ppm         ASTM D5185(m)         1         <1         7            Manganese         ppm         ASTM D5185(m)         1         4            Magnesium         ppm         ASTM D5185(m)         1         2         <1            Calcium         ppm         ASTM D5185(m)         7         5         14	Sodium	maa	ASTM D5185(m)		<1	4	
Barium         ppm         ASTM D5185(m)         1         <1				328			
Molybdenum         ppm         ASTM D5185(m)         0         <1			· · /				
Manganese         ppm         ASTM D5185(m)         1         4            Magnesium         ppm         ASTM D5185(m)         1         2         <1			. ,				
Magnesium         ppm         ASTM D5185(m)         1         2         <1	,		· · /				
Calcium         ppm         ASTM D5185(m)         7         5         14			( )	1			
	-						
			( )				
Zinc ppm ASTM D5185(m) 3 14 24	-		1 /				
Sulfur         ppm         ASTM D5185(m)         17909         25665         25072			. ,				
Visc @ 40°C         cSt         ASTM D7279(m)         99.6         173         203							





