

## **OIL ANALYSIS REPORT**

Sample Rating Trend



## G.LOPES CONSTRUCTION INC./Off-Road **L336**

Component **Front Differential** 

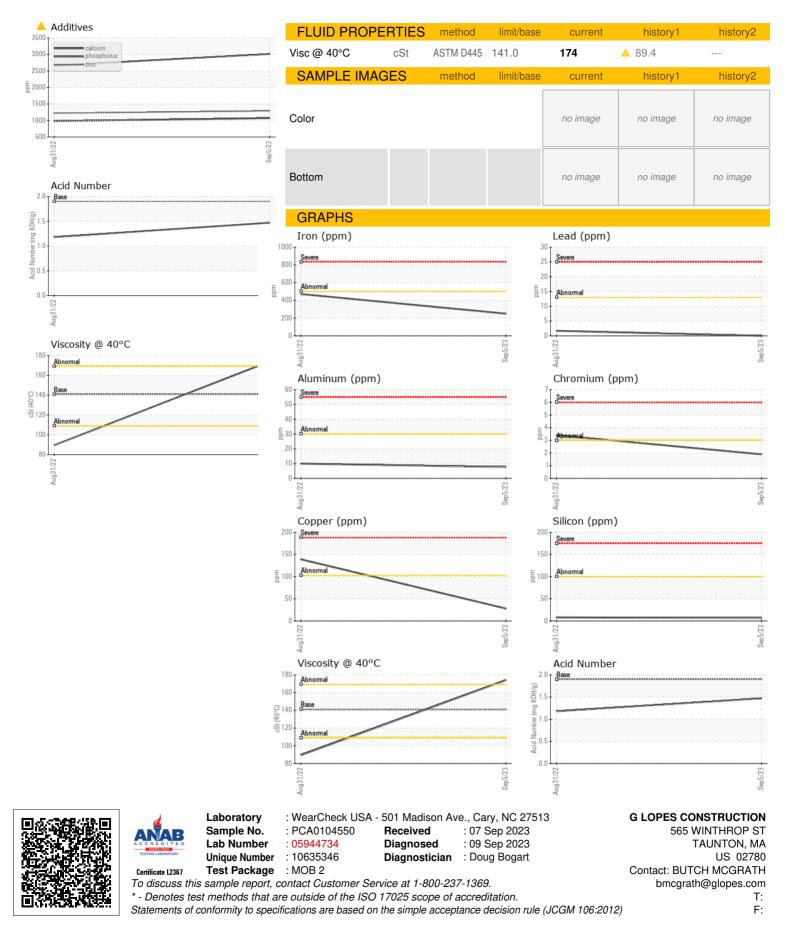
Fluid

PETRO CANADA TRAXON 80W90 (--- GAL)

Accorneration       Simple Number       Circle III-0       Very 1000000000000000000000000000000000000	DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Wear         All component wear rates are normal.         Oli Age         hrs         Client indo         8761         7145	Recommendation	Sample Number		Client Info		PCA0104550	PCA0078302	
Near     All components rates are normal.     Oil Agen     hs     Client ind     Oil Agen     Na     Na     Na       Constanisation     Oil Chargod     Client ind     Na     Na     Na     Na       Series In indication of any containination in it.     Oil Chargod     Client ind     Na     Na     Na     Na       Mathine Agen     Na     Na     Na     Na     Na     Na     Na       Maine Agen     Na     Na     Na     Na     Na     Na     Na       Maine Agen     Na     Na     Na     Na     Na     Na     Na       Maine Agen     Na     Na     Na     Na     Na     Na     Na       Maine Agen     Na     All Maining     Na     All Maining     Na     Na     Na     Na     Na       Maine Agen     Na     All Maining     Na     All Maining     Na     All Maining     Na     Na     In<     Na     Na     Na     In     Na     Na     In     Na     In     Na     In     Na     In     Na     In     In<     Na     In<     In<     In<     In<     In     In     In     In     In     In<     In<     In<	Resample at the next service interval to monitor.					05 Sep 2023	31 Aug 2022	
All component wear rates are normal.       Oil Age has Olient Into       0761       714.5	Wear		hrs	Client Info		•	-	
Consumination         Clicknapped         Client Ind         NA         NA         NA         NA           There is no indication of any contamination in hild.         Sample Status         Image Status         Image Status         Image Status         Image Status         Sample Status         Sample Status         Sample Status         Image Status         Image Status         Image Status         Sample		U	hrs	Client Info		8761	7145	
Sample Status         ATTENTION         ABNORMAL		Oil Changed		Client Info		N/A		
Note         Weak Metalacity of a different brand, or type of all. Confirm oil type. The AN level is acceptable for this fluid.         Weak METALS         method         limbbas         current         history1         history2           Variance         ppm         ASTM 05185m         >30         250         471            Variance         ppm         ASTM 05185m         >30         2         3            Variance         ppm         ASTM 05185m         >30         41             Nicke         ppm         ASTM 05185m         >2         0         1            Aduminum         ppm         ASTM 05185m         >2         0         1            Aduminum         ppm         ASTM 05185m         >2         0             Aduminum         ppm         ASTM 05185m         >10 <td< th=""><th></th><th>-</th><th></th><th></th><th></th><th></th><th>ABNORMAL</th><th></th></td<>		-					ABNORMAL	
Pluid Condition         pm         45110 621611         5600         250         471	•	÷	0					
Additive levels indicate he addition of a different band, or xyee of all. Confirm oil type. The AN level is acceptable for this fluid.         iron         MSRAI         mP         MSIMDSISEn         S3         2         3            Nickel         pm         MSIMDSISEn         S3         2         1             Nickel         pm         MSIMDSISEn         S3         2         1             Nickel         pm         MSIMDSISEn         S3         2         1             Muminum         pm         MSIMDSISEn         S10         1             Load         pm         MSIMDSISEn         S103         280         139            Copper         pm         MSIMDSISEn         S103         280         1         39            Varadium         pm         MSIMDSISEn         S103         280         1         2            ADDITIVES         manganese         pm         MSIMDSISEn         1         2         3            Barium         ppm         MSIMDSISEn         2         20         43      <		WEAR METAL	.S	method	limit/base	current	history1	history2
brand, or yppe f oil. Contirm oil type. The AN level         Chromium         ppm         ANII 05185n         >32         2         3            is acceptable for this fluid.         Ppm         Mix 05185n         >2         <1		Iron	ppm	ASTM D5185m	>500	250	471	
Titanium       ppm       ASIM D515m       >2       <1		Chromium	ppm	ASTM D5185m	>3	2	3	
Silver       ppm       ASTU D1858       >20       0       1	is acceptable for this fluid.	Nickel	ppm	ASTM D5185m	>3	<1	<1	
Aluminum       ppm       ASTM D5185m       >300       8       100          Lead       ppm       ASTM D5185m       >103       0       2          Copoper       ppm       ASTM D5185m       >103       28.8       139          Tin       ppm       ASTM D5185m       >5       0       <1		Titanium	ppm	ASTM D5185m	>2	<1	<1	
LeadppmASTM D3185m>13302CopperppmASTM D3185m>103280139TinppmASTM D5185m0<1		Silver	ppm	ASTM D5185m	>2	0	1	
Copper         ppm         ASTM D5185m         >103         28         ▲ 139            Tin         ppm         ASTM D5185m         >5         0         <1		Aluminum	ppm	ASTM D5185m	>30	8	10	
TinppmASTM D5185m ASTM D5185m>50<1VanadiumppmASTM D5185m0<1		Lead	ppm	ASTM D5185m	>13	0	2	
TinppmASTM D5188m ASTM D5188mS0<1VanadiumppmASTM D5188mV0<1		Copper	ppm	ASTM D5185m	>103	28	<b>1</b> 39	
VanadiumppmASTM D5185m0<1CadmiumppmASTM D5185m0<1			ppm	ASTM D5185m	>5	0	<1	
CadmiumppmASTM D5185m0<1ADDITIVESmethodimit/basecurrenthistory2BoronppmASTM D5185m24327BariumppmASTM D5185m2432<1		Vanadium		ASTM D5185m		0	<1	
BoronppmASTM D5185m243▲ 27BariumppmASTM D5185m12<1		Cadmium				0	<1	
BariumppmASTM D5185m12<1		ADDITIVES		method	limit/base	current	history1	history2
BariumppmASTM D5185m12<14-1MolybdenumppmASTM D5185m14MarganeseppmASTM D5185m22043MagnesiumppmASTM D5185m630122663CalciumppmASTM D5185m9871070982ZincppmASTM D5185m9871070982ZincppmASTM D5185m2153065759189SulfurppmASTM D5185m2153065759189SulfurppmASTM D5185m210078SoliconppmASTM D5185m210078PotassiumppmASTM D5185m2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mgK0HASTM D5185m2.01VISUALrenthodlimit/basecurrenthistory1history2White Metalscalar"VisualNONENONENONEYellow Metalscalar"VisualNONENONENONEDebrisscalar"VisualNONENONENONEAppearancescalar"VisualNONENORMLNORML		Boron	ppm	ASTM D5185m	243	<u>^</u> 2	7	
MolybdenumppmASTM D5185m14ManganesseppmASTM D5185m22043MagnesiumppmASTM D5185m630122663CalciumppmASTM D5185m9871070982PhosphorusppmASTM D5185m1412911219SuffurppmASTM D5185m2153065759189SuffurppmASTM D5185m>10078SodiumppmASTM D5185m>10078PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Kite Number (AN)mgKHASTM D5185m1.91.471.18VISUALmethodlimit/basecurrenthistory1history2VisualNONENONENONENONEVisualNONENONENONENONEVellow Metalscalar*VisualNONENONENONESittscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESittscalar*VisualNONENONENONEOdorscalar*VisualNONENONENONE<		Barium			1		<1	
MarganesseppmASTM D5185m22043MagnesiumppmASTM D5185m6A 30122663CalciumppmASTM D5185m6A 30122663PhosphorusppmASTM D5185m9871070982ZincppmASTM D5185m1A 12911219SulfurppmASTM D5185m215306 65759189CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>10078SodiumppmASTM D5185m>10078PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2VisualNONENONELIGHTVISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONEAcid Number (AN)scalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONE<		Molvbdenum		ASTM D5185m		1	4	
MagnesiumppmASTM D5185m22043CalciumppmASTM D5185m6▲ 30122663PhosphorusppmASTM D5185m9871070982ZincppmASTM D5185m1▲ 12911219SulfurppmASTM D5185m1▲ 12911219CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>10078SodiumppmASTM D5185m>20010PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mgK0HgASTM D81851.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESiltscalar*VisualNONENONENONEQorscalar*VisualNORMLNORMLNORML				ASTM D5185m		2	5	
CalciumppmASTM D5185m6▲ 30122663PhosphorusppmASTM D5185m9871070982ZincppmASTM D5185m1▲ 12911219SulfurppmASTM D5185m21530▲ 65759189SulfurppmASTM D5185m21530▲ 65759189CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>10078SodiumppmASTM D5185m>2010PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg K0HgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2Vhite Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESittscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAcid Numberscalar*VisualNONENONENONEVisualNONENONENONENONENONE		-			2			
PhosphorusppmASTM D5185m9871070982ZincppmASTM D5185m1▲12911219SulfurppmASTM D5185m21530▲65759189CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>10078SodiumppmASTM D5185m>2010PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mgKHgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2Vhite Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORML						-		
ZincppmASTM D5185m1▲ 12911219SulfurppmASTM D5185m21530▲ 65759189CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>10078SodiumppmASTM D5185m>10078SodiumppmASTM D5185m>2010PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEYellow Metalscalar*VisualNONENONENONESiltscalar*VisualNONENONENONESiltscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML								
SulfurppmASTM D5185m21530▲ 65759189CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>10078SodiumppmASTM D5185m>10078PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONEAgpearancescalar*VisualNORMLNORMLNORML								
SiliconppmASTM D5185m>10078SodiumppmASTM D5185m02PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONELIGHTYellow Metalscalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNortscalar*VisualNORMLNORML								
SodiumppmASTM D5185m002PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg K0HgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONELIGHTYellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONEAsid/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		CONTAMINAN	ITS	method	limit/base	current	history1	history2
PotassiumppmASTM D5185m>2010FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg K0HgASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONELIGHTYellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Silicon	ppm	ASTM D5185m	>100	7	8	
FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOH/gASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONELIGHTYellow Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORML		Sodium	ppm	ASTM D5185m		0	2	
Acid Number (AN)mg KOH/gASTM D80451.91.471.18VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONELIGHTYellow Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Potassium	ppm	ASTM D5185m	> 20	1	0	
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White Metalscalar*VisualNONENONELIGHTYellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		FLUID DEGRA						history2
Yellow Metalscalar*VisualNONENONENONEPrecipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORML				method	limit/base	current	history1	,
Precipitatescalar*VisualNONENONENONESiltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORML		Acid Number (AN)		method ASTM D8045	limit/base 1.9	current 1.47	history1 1.18	
Siltscalar*VisualNONENONENONEDebrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Acid Number (AN) VISUAL	mg KOH/g	method ASTM D8045 method	limit/base 1.9 limit/base	current 1.47 current	history1 1.18 history1	 history2
Debrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Acid Number (AN) VISUAL White Metal	mg KOH/g scalar	method ASTM D8045 method *Visual	limit/base 1.9 limit/base NONE	current 1.47 current NONE	history1 1.18 history1 LIGHT	 history2
Debrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Acid Number (AN) VISUAL White Metal Yellow Metal	mg KOH/g scalar scalar	method ASTM D8045 method *Visual *Visual	limit/base 1.9 limit/base NONE NONE	Current 1.47 Current NONE NONE	history1 1.18 history1 LIGHT NONE	 history2 
Sand/Dirtscalar*VisualNONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate	mg KOH/g scalar scalar scalar	method ASTM D8045 method *Visual *Visual *Visual	limit/base 1.9 limit/base NONE NONE NONE	Current 1.47 Current NONE NONE NONE	history1 1.18 history1 LIGHT NONE NONE	 history2 
Appearancescalar*VisualNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORML		Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt	mg KOH/g scalar scalar scalar scalar	method ASTM D8045 *Visual *Visual *Visual *Visual	limit/base 1.9 limit/base NONE NONE NONE	Current 1.47 Current NONE NONE NONE NONE	history1 1.18 history1 LIGHT NONE NONE NONE	 history2  
Odor scalar *Visual NORML NORML NORML		Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris	mg KOH/g scalar scalar scalar scalar scalar	method ASTM D8045 *Visual *Visual *Visual *Visual *Visual	limit/base 1.9 limit/base NONE NONE NONE NONE	Current 1.47 Current NONE NONE NONE NONE NONE NONE NONE NON	history1 1.18 history1 LIGHT NONE NONE NONE NONE	 history2  
		Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	mg KOH/g scalar scalar scalar scalar scalar	method ASTM D8045 *Visual *Visual *Visual *Visual *Visual *Visual	limit/base 1.9 NONE NONE NONE NONE NONE NONE	Current 1.47 Current NONE NONE NONE NONE NONE NONE	history1 1.18 history1 LIGHT NONE NONE NONE NONE NONE	 history2    
		Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	mg KOH/g scalar scalar scalar scalar scalar scalar scalar scalar	method ASTM D8045 *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base 1.9 NONE NONE NONE NONE NONE NONE NONE NON	Current 1.47 Current NONE NONE NONE NONE NONE NONE NONE	history1 1.18 history1 LIGHT NONE NONE NONE NONE NONE NONE NONE	 history2    
Free Water scalar *Visual NEG NEG		Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	mg KOH/g scalar scalar scalar scalar scalar scalar scalar scalar	method ASTM D8045 *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	limit/base 1.9 NONE NONE NONE NONE NONE NONE NONE NORML NORML	Current 1.47 NONE NONE NONE NONE NONE NONE NONE NORML NORML	history1 1.18 history1 LIGHT NONE NONE NONE NONE NONE NONE NONE NORML NORML	 history2



## **OIL ANALYSIS REPORT**



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