

### **OIL ANALYSIS REPORT**

Sample Rating Trend

### NORMAL

# EISENBEISS L3 COEX (S/N E-T105776/10/1)

Component Distribution Gear Fluid

#### PETRO CANADA ENDURATEX SYNTHETIC EP 460 (--- LTR)

Resempted interval to motion       Sample During       Click info       PLAGES       PL	DIAGNOSIS	SAMPLE INFORM	<b>/IATION</b>	method	limit/base	current	history1	history2
Year       All company aver rates are normal.       Oil Age       his       Client linio       00            Contamination       Oil Changed       Client linio       Not Changed            Fue containingtion in truid.       Oil Changed       Client linio       Not Changed            Fue All wells acceptable for further service.       PQ       ASTM 0818       -200       17            PQ       ASTM 0818       -500       2             Chromium ppm       ASTM 0818       >100       0             Chromium ppm       ASTM 0818       >100       0             Maining ppm       ASTM 0818       >100       0 </th <th>Recommendation</th> <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>PCA0092249</th> <th></th> <th></th>	Recommendation	Sample Number		Client Info		PCA0092249		
All component wear rates are normal.       Oil Age       Intra       Other Intro       Not Changd           There is no indication of any contamination in the ol.       Sample Statuis       Client Into       Not Changd           The AN level is acceptable for this fluid. The condition of the oil is suitable for this fluid. The condition of the oil is suitable for further service.       PQ       ASTM D614       -200       17           Nickla       ppm       ASTM D616       -200       17           Nickla       ppm       ASTM D616       -200       17           Nickla       ppm       ASTM D6166       -10            Nickla       ppm       ASTM D6166       -10       0            Aluminum       ppm       ASTM D6166       -10       0	Resample at the next service interval to monitor.	Sample Date		Client Info		13 Feb 2023		
All component wear rates are normal.       Oil Age       Intra       Other Intro       Not Changd           There is no indication of any contamination in the ol.       Sample Statuis       Client Into       Not Changd           The AN level is acceptable for this fluid. The condition of the oil is suitable for this fluid. The condition of the oil is suitable for further service.       PQ       ASTM D614       -200       17           Nickla       ppm       ASTM D616       -200       17           Nickla       ppm       ASTM D616       -200       17           Nickla       ppm       ASTM D6166       -10            Nickla       ppm       ASTM D6166       -10       0            Aluminum       ppm       ASTM D6166       -10       0	Wear	Machine Age	hrs	Client Info		0		
Commination       Client Inio       No CRAM       ····       ····         Sample Status       I       No RRAM       ····       I       No RRAM       ····       I         Fue All wells acceptable for this fluid. The condition of the oil is suitable for further service.       PQ       ASTM 06164       >2000       17       ····       ····       ····       ····         No RAM       >2000       17       ·····       ·····		-	hrs	Client Info		400		
Sample Status         NORMAL             The is no indication of any contamination in the ot.         The AL level is acceptable for this fluid. The condition of the oil is suitable for further service.         NetAR METALS         method         timbibase         carrent         Velocy1         Holloy2           PQ         ASTM 08154         >100               Nickel         ppm         ASTM 08156         >10         0             Nickel         ppm         ASTM 08156         >10         0             Nickel         ppm         ASTM 08156         >10         0             Silver         ppm         ASTM 08156         >10         0             Auminum         ppm         ASTM 08156         >0         0             Copper         ppm         ASTM 08156         >0              Data         ppm         ASTM 08156         >0              Copper         ppm         ASTM 08156         >0		-		Client Info		Not Changd		
Oil.       WEAR METALS       method       fundbase       current       history1       history2         PO       ASTM 05184       >200       17           Ite on lies suitable for turther service.       PO       ASTM 05185       >10       0           Ite on lies suitable for turther service.       PO       ASTM 05185       >10       0           Nekel       ppm       ASTM 05185       >10       0            Nekel       ppm       ASTM 05185       >10       0		-				NORMAL		
Pick Condition         PQ         ASTM DB18         >200         17             The AN level is acceptable for further service.         PQ         ASTM DB188         >210         0             Nakel         ppm         ASTM DB188         >10         0             Nakel         ppm         ASTM DB188         >10         0			2	method	limit/base		history1	history?
Ine AN levely is a daceptable for further service.       iron       ppm       ASTM DB156r       >150       2           Onromium       ppm       ASTM DB156r       >10       0           Nickel       ppm       ASTM DB156r       >10       0           Nickel       ppm       ASTM DB156r       >10       0           Auminum       ppm       ASTM DB156r       >25       0           Auminum       ppm       ASTM DB156r       >100       0           Auminum       ppm       ASTM DB156r       >100       0           Auminum       ppm       ASTM DB156r       >10       0           Vanadium       ppm       ASTM DB156r       >0       0           ADDITVES       method       limit/base       current       History1       History1       History1         Vanadium       ppm       ASTM DB156r       5       0            ADDITVES       method       limit/base       current       History1 </td <td>Fluid Condition</td> <td></td> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td><u>,</u></td>	Fluid Condition		5					<u>,</u>
Chromium         ppm         ASTU DS156         >10         0             Nickei         ppm         ASTU DS156         >10         0             Silver         ppm         ASTU DS156         0              Auminum         ppm         ASTU DS156         0              Auminum         ppm         ASTU DS156         >50         0             Quencing         ppm         ASTU DS156         >50         0             Quencing         ppm         ASTU DS156         >10         0             Quencing         ppm         ASTU DS156         >10         0             Quencing         ppm         ASTU DS156         10              ADDITIVES         method         limit/base         current         History1         History2           Barium         ppm         ASTU DS156         5         <1								
Nickel         ppm         ASTM 05185m         >10         0             Thanium         ppm         ASTM 05185m         1             Silver         ppm         ASTM 05185m         >25         0             Auminum         ppm         ASTM 05185m         >100         0             Lead         ppm         ASTM 05185m         >100         0             Vanadium         ppm         ASTM 05185m         >10         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM 05185m         5         0             Magnese         ppm         ASTM 05185m         5         1             Magnese         ppm         ASTM 05185m         5         1             Rolenum         ppm         ASTM 05185m         5         1             Sildenum         ppm         ASTM 05185m         5.0	condition of the oil is suitable for further service.							
Titanium       ppm       ASTM 05185n       <1								
Silver         ppm         ASTM 05185n         >25         0             Aluminum         ppm         ASTM 05185n         >250         0             Coppor         ppm         ASTM 05185n         >50         1             Tin         ppm         ASTM 05185n         >50         0             Quanadium         ppm         ASTM 05185n         >50         0             Cadmium         ppm         ASTM 05185n         300         26             ADDITIVES         method         imit/base         current         history1         history2           Barrum         ppm         ASTM 05185n         300         26             Molybdenum         ppm         ASTM 05185n         300         26             Calcium         ppm         ASTM 05185n         300         26             Calcium         ppm         ASTM 05185n         5         1             Suftur         ppm         ASTM 05185n					>10			
Aluminum       ppm       ASTM D5355       >25       0           Lead       ppm       ASTM D5855       >50       <1								
Lead         ppm         ASTM DS185m         >100         0             Copper         ppm         ASTM DS185m         >10         0             Tin         ppm         ASTM DS185m         >10         0             Vanadium         ppm         ASTM DS185m         0         0             ADDITIVES         Fmethod         limit/base         current         history2            Boron         ppm         ASTM DS185m         3.30         26             Molybdenum         ppm         ASTM DS185m         5         0             Magnesium         ppm         ASTM DS185m         5         1             Magnesium         ppm         ASTM DS185m         5         1             Suffur         ppm         ASTM DS185m         5         1             Suffur         ppm         ASTM DS185m         5         1             Suffur         ppm         ASTM DS185m         5.00 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
Copper         ppm         ASTM D5186m         >500         <1								
Tin         ppm         ASTM D5186m         >10         0             Vanadium         ppm         ASTM D5186m         0             Cadmium         ppm         ASTM D5186m         0             ADDITIVES         method         Immit Soc         current         History1         History2           Barium         ppm         ASTM D5186m         330         26             Manganese         ppm         ASTM D5186m         5         0             Manganese         ppm         ASTM D5186m         5         <1								
VanadiumppmASIM D5185m0CadmiumppmASIM D5185m300260ADDITIVESmethodimit/basecurrenthistory1history2BoronppmASIM D5185m330266MolybdenumppmASIM D5185m50ManganeseppmASIM D5185m0ManganesumppmASIM D5185m5<1								
CadmiumppmASTM D5185m0ADDITIVESmethodimit/basecurrenthistory1history2BoronppmASTM D5185m33026BariumppmASTM D5185m50MagneseppmASTM D5185m51MagnesiumppmASTM D5185m5<1			ppm		>10			
ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM 05185m3.3026BariumppmASTM 05185m50MolybdenumppmASTM 05185m<1		Vanadium	ppm			0		
Boron         ppm         ASTM D5185m         3.30         26             Barium         ppm         ASTM D5185m         5         0             MolyDdenum         ppm         ASTM D5185m         -         -1             Maganesice         ppm         ASTM D5185m         5         -1             Magnesice         ppm         ASTM D5185m         5         -1             Calcium         ppm         ASTM D5185m         5         -1             Phosphorus         ppm         ASTM D5185m         5         0             Sulfur         ppm         ASTM D5185m         500         4828             Sulfur         ppm         ASTM D5185m         500         4828             Sodium         ppm         ASTM D5185m         500         1             Sodium         ppm         ASTM D5185m         >20         1             Sodium         ppm         ASTM D5185m <td></td> <td>Cadmium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td>0</td> <td></td> <td></td>		Cadmium	ppm	ASTM D5185m		0		
Barium       ppm       ASTM D5185m       5       0           Molybdenum       ppm       ASTM D5185m       <1           Magnesium       ppm       ASTM D5185m       5       <1           Magnesium       ppm       ASTM D5185m       5       <1           Calcium       ppm       ASTM D5185m       5       <1           Phosphorus       ppm       ASTM D5185m       5       <1           Sulfur       ppm       ASTM D5185m       500       4828           Sulfur       ppm       ASTM D5185m       500       4828           Solfur       ppm       ASTM D5185m       500       4828           Solfur       ppm       ASTM D5185m       >20       1           Solfur       ppm       ASTM D5185m       >20       1           VISUAL       method       Imit/base       current       History1       History2         Visual       NONE       NONE       NONE		ADDITIVES		method	limit/base	current	history1	history2
MolybdenumppmASTM D5185m<1ManganesseppmASTM D5185m0MagnesiumppmASTM D5185m5<1		Boron	ppm	ASTM D5185m	330	26		
MarganeseppmASTM D5185m0MagnesiumppmASTM D5185m5<1		Barium	ppm	ASTM D5185m	5	0		
MagnesiumppmASTM D5185m5<1CalciumppmASTM D5185m5<1		Molybdenum	ppm	ASTM D5185m		<1		
CalciumppmASTM D5185m5<1PhosphorusppmASTM D5185m437377ZineppmASTM D5185m50SulfurppmASTM D5185m50004828CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1		Manganese	ppm	ASTM D5185m		0		
PhosphorusppmASTM D5185m437377ZincppmASTM D5185m50SulfurppmASTM D5185m50004828CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1		Magnesium	ppm	ASTM D5185m	5	<1		
ZincppmASTM D5185m50SulfurppmASTM D5185m50004828CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1		Calcium	ppm	ASTM D5185m	5	<1		
SulfurppmASTM D5185m50004828CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1		Phosphorus	ppm	ASTM D5185m	437	377		
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>50<1SodiumppmASTM D5185m0PotassiumppmASTM D5185m>201FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg K0HgASTM D80450.70.87VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLCdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLCdorscalar*VisualNORMLNORMLCdorscalar*VisualNORMLNORMLCdorscalar*VisualNORMLNORML		Zinc	ppm	ASTM D5185m	5	0		
SiliconppmASTM D5185m>50<1SodiumppmASTM D5185mQQPotassiumppmASTM D5185m>201FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80450.70.87VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESittscalar*VisualNONELIGHTDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLEmulsified Waterscalar*VisualNORMLNEGEmulsified Waterscalar*VisualNORMLNEGEmulsified Waterscalar*VisualNORMLNEGEmulsified Vaterscalar*Visual </td <td></td> <td>Sulfur</td> <td>ppm</td> <td>ASTM D5185m</td> <td>5000</td> <td>4828</td> <td></td> <td></td>		Sulfur	ppm	ASTM D5185m	5000	4828		
SodiumppmASTM D5185m0PotassiumppmASTM D5185m>201FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80450.70.87VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONESand/Dirtscalar*VisualNONELIGHTAppearancescalar*VisualNONENORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		CONTAMINAN	TS	method	limit/base	current	history1	history2
PotassiumpmASTM D5185m>201FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80450.70.87VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Silicon	ppm	ASTM D5185m	>50	<1		
FLUID DEGRADATION methodlimit/basecurrenthistory1history2Acid Number (AN)mg KOHgASTM D80450.70.87VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONESiltscalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Sodium	ppm	ASTM D5185m		0		
Acid Number (AN)mg KOHgASTM D80450.70.87VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Potassium	ppm	ASTM D5185m	>20	1		
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONELIGHTAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
White Metalscalar*VisualNONELIGHTYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Acid Number (AN)	mg KOH/g	ASTM D8045	0.7	0.87		
Yellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		VISUAL		method	limit/base	current	history1	history2
Yellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		White Metal	scalar	*Visual	NONE	LIGHT		
Precipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Yellow Metal	scalar					
Siltscalar*VisualNONENONEDebrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Precipitate						
Debrisscalar*VisualNONELIGHTSand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG				*Visual	NONE			
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Debris						
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG		Sand/Dirt						
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG								
Emulsified Water scalar *Visual >0.1 NEG					NORML			
		Emulsified Water						
	Report Id: CERBUF [WUSCAR] 05770324 (Generated: 08/16/2023 10						tion:-MIKE SLO	MBACERBUF



## **OIL ANALYSIS REPORT**



Contact/Location: MIKE SLOMBA - CERBUF

BUFFALO, NY

US 14218

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