

# **OIL ANALYSIS REPORT**

# INDIANA CROSSROADS II [200008339] T14 (S/N W-124771)

Hydraulic System

**HYDRAULIC OIL FG ISO 32 (--- LTR)** 





### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

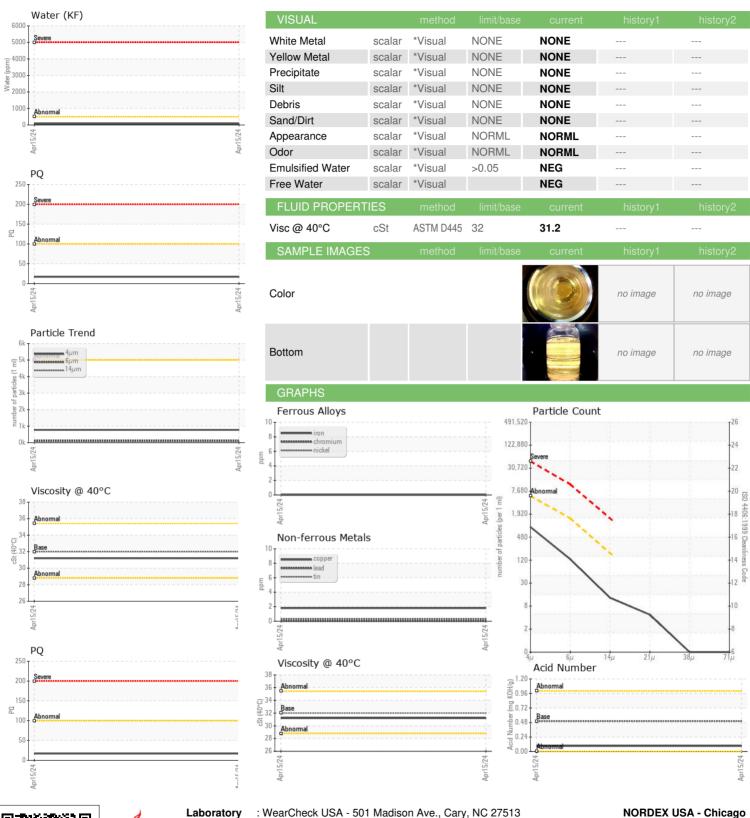
### **Fluid Condition**

The condition of the oil is suitable for further

SAMPLE INFORMATION   method   multibase   current   history1   history2					Apr2024		
Sample Number   Client Info   NX06151100   Sample Date   Client Info   15 Apr 2024							
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         NORMAL             WEAR METALS         method         limit/bass         current         history1         history2           PQ         ASTM D5185m         2-20         0             Iron         ppm         ASTM D5185m         >2-20         0             Chromium         ppm         ASTM D5185m         >2-0         0             Nickel         ppm         ASTM D5185m         >2-0         0             Alluminum         ppm         ASTM D5185m         >2-0         0             Lead         ppm         ASTM D5185m         >2-0         2             Vanadium         ppm         ASTM D5185m         >2-0         2             Vanadium         ppm         ASTM D5185m	Sample Number		Client Info		NX06151100		
Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         NORMAL             WEAR METALS         method         limit/bass         current         history1         history2           PQ         ASTM D5185m         20         0             Iron         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >20         0             Niker         ppm         ASTM D5185m         >20         0             Aluminum         ppm         ASTM D5185m         >20         0             Lead         ppm         ASTM D5185m         >20         2             Vanadium         ppm         ASTM D5185m         >20         2             Vanadium         ppm         ASTM D5185m         0<	Sample Date		Client Info		15 Apr 2024		
Oil Age         hrs         Client Info         N/A            Oil Changed         Client Info         N/A            Sample Status         Client Info         N/A            WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D6185m         20         0             Chromium         ppm         ASTM D6185m         >20         0            Nickel         ppm         ASTM D6185m         >20         0             Silver         ppm         ASTM D6185m         >20         0             Silver         ppm         ASTM D6185m         >20         0             Aluminum         ppm         ASTM D6185m         >20         0             Lead         ppm         ASTM D6185m         >20         2             Capper         ppm         ASTM D6185m         >20         2             Vanadium         ppm         ASTM D6185m         0 <t< td=""><td></td><td>hrs</td><td>Client Info</td><td></td><th>0</th><td></td><td></td></t<>		hrs	Client Info		0		
Oil Changed Sample Status         Client Info         N/A            WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D6184m         17             Iron         ppm         ASTM D6185m         >20         0            Chromium         ppm         ASTM D6185m         >20         0            Nickel         ppm         ASTM D6185m         >20         0            Silver         ppm         ASTM D5185m         >20         0            Aluminum         ppm         ASTM D5185m         >20         1            Aluminum         ppm         ASTM D5185m         >20         2            Aluminum         ppm         ASTM D5185m         >20         2            Vanadium         ppm         ASTM D5185m         >20         2            Vanadium         ppm         ASTM D5185m         0             Boron         ppm         ASTM D5185m         5         0             Barium	-	hrs	Client Info		0		
WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D8184         17             Iron         ppm         ASTM D8185m         >20         0            Nickel         ppm         ASTM D8185m         >20         0            Nickel         ppm         ASTM D8185m         0             Sliver         ppm         ASTM D8185m         0             Aluminum         ppm         ASTM D8185m         0             Aluminum         ppm         ASTM D8185m         20         0             Copper         ppm         ASTM D8185m         >20         2             Tin         ppm         ASTM D8185m         0              Vanadium         ppm         ASTM D8185m         0              Vanadium         ppm         ASTM D8185m         0              Barium         ppm         ASTM D8185m	-		Client Info		N/A		
PQ					NORMAL		
Iron	WEAR METALS		method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         >20         0             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         >20         <1	PQ		ASTM D8184		17		
Chromium         ppm         ASTM D5185m         >20         0             Nickel         ppm         ASTM D5185m         20         0             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         >20         <1             Aluminum         ppm         ASTM D5185m         >20         <1             Aluminum         ppm         ASTM D5185m         >20         <1             Lead         ppm         ASTM D5185m         >20         <1             Copper         ppm         ASTM D5185m         >20         <1             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0              ADITIVES         method         limit/base         current         history1         history2           Barium         ppm         ASTM D5185m         5         0	Iron	mag	ASTM D5185m	>20	0		
Nickel         ppm         ASTM D5185m         >20         0             Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >20         <1	Chromium		ASTM D5185m	>20	0		
Titanium         ppm         ASTM D5185m         0             Silver         ppm         ASTM D5185m         20             Aluminum         ppm         ASTM D5185m         >20         <1             Lead         ppm         ASTM D5185m         >20         0             Copper         ppm         ASTM D5185m         >20         <1             Vanadium         ppm         ASTM D5185m         >20         <1             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0              ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0          <				>20	_		
Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         >20         <1				7 = 0	-		
Aluminum							
Lead         ppm         ASTM D5185m         >20         0             Copper         ppm         ASTM D5185m         >20         2             Tin         ppm         ASTM D5185m         >20         <1				>20	-		
Copper         ppm         ASTM D5185m         >20         2             Tin         ppm         ASTM D5185m         >20         <1							
Tin ppm ASTM D5185m >20 <1					-		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             Barium         ppm         ASTM D5185m         5         0             Molybdenum         ppm         ASTM D5185m         5         0             Manganese         ppm         ASTM D5185m         5         <1             Magnesium         ppm         ASTM D5185m         12         3             Magnesium         ppm         ASTM D5185m         12         3             Calcium         ppm         ASTM D5185m         12         18             Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         15         <1 <th< td=""><td></td><td></td><td></td><td></td><th></th><td></td><td></td></th<>							
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             Barium         ppm         ASTM D5185m         5         0             Molybdenum         ppm         ASTM D5185m         5         0             Manganese         ppm         ASTM D5185m         5         <1             Magnesium         ppm         ASTM D5185m         5         <1             Magnesium         ppm         ASTM D5185m         12         3             Calcium         ppm         ASTM D5185m         12         18             Phosphorus         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         12         18             CONTAMINANTS         method         limit/base         current         hi				>20			
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         5         0             Barium         ppm         ASTM D5185m         5         0             Molybdenum         ppm         ASTM D5185m         5         0             Manganese         ppm         ASTM D5185m         1              Magnesium         ppm         ASTM D5185m         12         3             Phosphorus         ppm         ASTM D5185m         12         18             Phosphorus         ppm         ASTM D5185m         12         18             Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         >15         <1							
Boron   ppm   ASTM D5185m   5   0           Molybdenum   ppm   ASTM D5185m   5   0         Manganese   ppm   ASTM D5185m   5   0         Magnesium   ppm   ASTM D5185m   5   <1         Magnesium   ppm   ASTM D5185m   12   3           Calcium   ppm   ASTM D5185m   12   3           Phosphorus   ppm   ASTM D5185m   400   621           Sulfur   ppm   ASTM D5185m   12   18           Sulfur   ppm   ASTM D5185m   650   722           CONTAMINANTS   method   limit/base   current   history1   history2       Silicon   ppm   ASTM D5185m   > 15   <1           Sodium   ppm   ASTM D5185m   > 20   1           Potassium   ppm   ASTM D5185m   > 20   1           Putassium   ppm   ASTM D6304   > 0.05   0.007           Ppm Water   ppm   ASTM D6304   > 500   73           FLUID CLEANLINESS   method   limit/base   current   history1   history2       Particles > 4μm   ASTM D7647   > 5000   772           Particles > 14μm   ASTM D7647   > 160   11           Particles > 28μm   ASTM D7647   > 40   4           Particles > 71μm   ASTM D7647   > 3   0             Particles > 71μm   ASTM D7647   > 3   0             Particles > 71μm   ASTM D7647   > 3   0             Particles > 71μm   ASTM D7647   > 3   0               Particles > 71μm   ASTM D7647   > 3   0               Particles > 71μm   ASTM D7647   > 3   0                   Particles > 71μm   ASTM D7647   > 3   0                             Particles > 71μm   ASTM D7647   > 3   0	Cadmium	ppm	ASTM D5185m		0		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         5         0             Manganese         ppm         ASTM D5185m         1             Magnesium         ppm         ASTM D5185m         5         <1             Calcium         ppm         ASTM D5185m         12         3             Phosphorus         ppm         ASTM D5185m         400         621             Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         12         18             CONTAMINANTS           method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         2         1             Sodium         ppm         ASTM D5185m         20         1             Vater         %         ASTM D5185m         20 </td <td>Boron</td> <td>ppm</td> <td>ASTM D5185m</td> <td>5</td> <th>0</th> <td></td> <td></td>	Boron	ppm	ASTM D5185m	5	0		
Manganese         ppm         ASTM D5185m         1             Magnesium         ppm         ASTM D5185m         5         <1	Barium	ppm	ASTM D5185m	5	0		
Magnesium         ppm         ASTM D5185m         5         <1             Calcium         ppm         ASTM D5185m         12         3             Phosphorus         ppm         ASTM D5185m         400         621             Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         650         722             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1	Molybdenum	ppm	ASTM D5185m	5	0		
Calcium         ppm         ASTM D5185m         12         3             Phosphorus         ppm         ASTM D5185m         400         621             Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         12         18             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         2             Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         20         1             Water         %         ASTM D5185m         >20         1             Water         %         ASTM D6185m         >20         1             Water         %         ASTM D6304         >0.05         0.007             Particles >4µm         ASTM D7647         >5000         772	Manganese	ppm	ASTM D5185m		1		
Phosphorus         ppm         ASTM D5185m         400         621             Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         650         722             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1	Magnesium	ppm	ASTM D5185m	5	<1		
Zinc         ppm         ASTM D5185m         12         18             Sulfur         ppm         ASTM D5185m         650         722             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1	Calcium	ppm	ASTM D5185m	12	3		
Sulfur         ppm         ASTM D5185m         650         722             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1	Phosphorus	ppm	ASTM D5185m	400	621		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >15         <1	Zinc	ppm	ASTM D5185m	12	18		
Silicon         ppm         ASTM D5185m         >15         <1             Sodium         ppm         ASTM D5185m         2              Potassium         ppm         ASTM D6304         >0.05         0.007             Water         %         ASTM D6304         >500         73             ppm Water         ppm         ASTM D6304         >500         73             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         772             Particles >6μm         ASTM D7647         >1300         112             Particles >14μm         ASTM D7647         >160         11             Particles >21μm         ASTM D7647         >40         4             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         17/14/11 <td>Sulfur</td> <td>ppm</td> <td>ASTM D5185m</td> <td>650</td> <th>722</th> <td></td> <td></td>	Sulfur	ppm	ASTM D5185m	650	722		
Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         1             Water         %         ASTM D6304         >0.05         0.007             ppm Water         ppm         ASTM D6304         >500         73             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         772             Particles >6μm         ASTM D7647         >1300         112             Particles >14μm         ASTM D7647         >160         11             Particles >21μm         ASTM D7647         >40         4             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         17/14/11	CONTAMINANTS	;	method	limit/base	current	history1	history2
Sodium         ppm         ASTM D5185m         2             Potassium         ppm         ASTM D5185m         >20         1             Water         %         ASTM D6304         >0.005         0.0007             ppm Water         ppm         ASTM D6304         >500         73             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         772             Particles >6μm         ASTM D7647         >1300         112             Particles >14μm         ASTM D7647         >160         11             Particles >21μm         ASTM D7647         >40         4             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         17/14/11	Silicon	ppm	ASTM D5185m	>15	<1		
Water         %         ASTM D6304         >0.05         0.007             ppm Water         ppm         ASTM D6304         >500         73             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         772             Particles >6μm         ASTM D7647         >1300         112             Particles >14μm         ASTM D7647         >160         11             Particles >21μm         ASTM D7647         >40         4             Particles >38μm         ASTM D7647         >3         0             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         17/14/11	Sodium	ppm	ASTM D5185m		2		
Water         %         ASTM D6304         >0.05         0.007             ppm Water         ppm         ASTM D6304         >500         73             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         772             Particles >6μm         ASTM D7647         >1300         112             Particles >14μm         ASTM D7647         >160         11             Particles >21μm         ASTM D7647         >40         4             Particles >38μm         ASTM D7647         >3         0             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         17/14/11	Potassium		ASTM D5185m	>20			
ppm Water         ppm         ASTM D6304         >500         73             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         772             Particles >6μm         ASTM D7647         >1300         112             Particles >14μm         ASTM D7647         >160         11             Particles >21μm         ASTM D7647         >40         4             Particles >38μm         ASTM D7647         >10         0             Particles >71μm         ASTM D7647         >3         0             Oil Cleanliness         ISO 4406 (c)         >19/17/14         17/14/11	Water		ASTM D6304	>0.05	0.007		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$							
Particles >6μm       ASTM D7647       >1300       112           Particles >14μm       ASTM D7647       >160       11           Particles >21μm       ASTM D7647       >40       4           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       17/14/11	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >6μm       ASTM D7647       >1300       112           Particles >14μm       ASTM D7647       >160       11           Particles >21μm       ASTM D7647       >40       4           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       17/14/11	Particles >4μm		ASTM D7647	>5000	772		
Particles >14μm       ASTM D7647       >160       11           Particles >21μm       ASTM D7647       >40       4           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       17/14/11							
Particles >21μm       ASTM D7647       >40       4           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       17/14/11							
Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       17/14/11							
Particles >71μm       ASTM D7647       >3       0           Oil Cleanliness       ISO 4406 (c)       >19/17/14       17/14/11							
Oil Cleanliness ISO 4406 (c) >19/17/14 17/14/11							
FLUID DEGRADATION method limit/base current history1 history2							
	FLUID DEGRADA	TION _	method_	limit/base	current.	history1	history2



## **OIL ANALYSIS REPORT**







Certificate 12367

Sample No. Lab Number

Laboratory

: NX06151100

: 06151100 Unique Number : 10981178 Test Package : IND 2 (Additional Tests: KF, PQ)

Received **Tested** 

: 16 Apr 2024 : 17 Apr 2024 Diagnosed : 19 Apr 2024 - Don Baldridge

300 SOUTH WACKER DRIVE, SUITE 1500

US 60606 Contact: DEVIN LINEHAN DLinehan@nordex-online.com T: (312)386-4124

To discuss this sample report, contact Customer Service at 1-800-237-1369.  $^st$  - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (312)386-7102 Contact/Location: DEVIN LINEHAN - NORDEX

CHICAGO, IL