

### **OIL ANALYSIS REPORT**

Sample Rating Trend



# Z-3301B D-3310B

Hydraulic System Fluid IRVING HYDRAULIC OIL LP 32 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as IRVING HYDRAULIC OIL LP 32, however, a fluid match indicates that this fluid is ISO 32 R&O Hydraulic Oil. Please confirm the oil type and grade on your next sample. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

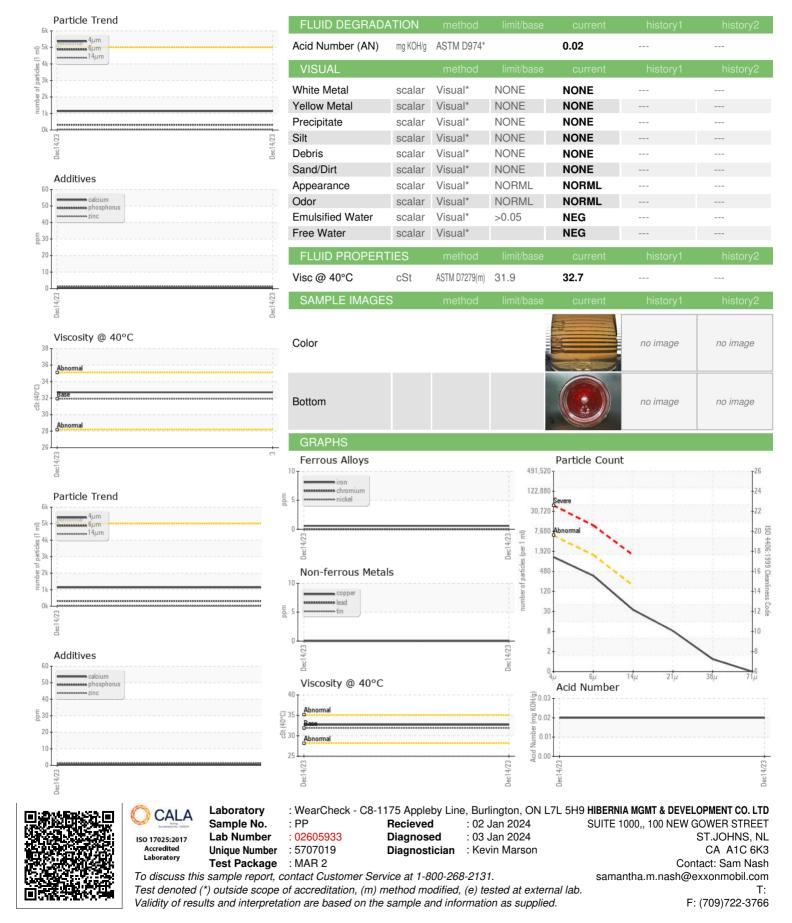
#### Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A					Dec2023		
Sample Date         Client Info         14 Dec 2023             Machine Age         hrs         Client Info         0             OII Age         hrs         Client Info         0             Sample Status         Client Info         N/A             CONTAMINATION         method         Imit/base         current         history1         History2           Water         WC Method         >0.05         NEG             WEAR METALS         method         Imit/base         current         history1         History2           Iron         ppm         ASTM058600         -0              Nickel         ppm         ASTM058600         -0              Initianu         ppm         ASTM058600         -0              Lead         ppm         ASTM058600         >10              Autimium         ppm         ASTM058600         >0              Copper         ppm	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Date         Client Info         14 Dec 2023             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         Client Info         N/A             CONTAMINATION         method         Imit/base         current         history1         History2           Water         WC Method         >0.05         NEG             Nickel         ppm         ASTM D51800         >10         0             Nickel         ppm         ASTM D51800         >10         <1             Nickel         ppm         ASTM D51800         0              Aluminum         ppm         ASTM D51800         0              Adminum         ppm         ASTM D51800         0              Adminum         ppm         ASTM D51800	Sample Number		Client Info		PP		
Oil Age         hrs         Client Info         0             Oil Changed         Client Info         N/A             Sample Status         Client Info         N/A             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.05         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5180m         >10         0             Silver         ppm         ASTM D5180m         >10         -1             Aluminum         ppm         ASTM D5180m         >20         0             Silver         ppm         ASTM D5180m         >20         0             Aluminum         ppm         ASTM D5180m         >10         0             Vanadium         ppm         ASTM D5180m         0             Antimony         ppm	Sample Date		Client Info		14 Dec 2023		
Oil Age         Inrs         Client Info         N/A             Oil Changed         Client Info         N/A             Sample Status         Imit/base         current         Nistory1         Nistory2           CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.05         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 0518(m)         >20         <1	Machine Age	hrs			0		
Oli Changed         Client Info         N/A             Sample Status         Image of the status           CONTAMINATION         method         Imit/base         current         History1         History2           Water         WC Method         >0.05         NEG             WEAR METALS         method         Imit/base         current         History1         History2           Iron         ppm         ASTM D5185(m)         >10         0             Okckel         ppm         ASTM D5185(m)         >10         0             Aluminum         ppm         ASTM D5185(m)         >20         0             Auminum         ppm         ASTM D5185(m)         >20         0             Lead         ppm         ASTM D5185(m)         >20         0	v	hrs	Client Info		0		
Sample Status         NORMAL             CONTAMINATION         method         imit/base         current         history1         history2           Water         WC Method         >0.05         NEG             WEAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM 05185(m)         >20         <1	Oil Changed		Client Info		N/A		
Water         WC Method         >0.05         NEG            WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185(m)         >20         <1	Sample Status				NORMAL		
WEAR METALS         method         imit/base         current         history1         history2           Iron         ppm         ASTM DS185(m)         >20         <1             Ohromium         ppm         ASTM DS185(m)         >10         0             Nickel         ppm         ASTM DS185(m)         >10         <1             Aluminum         ppm         ASTM DS185(m)         10         <1             Aluminum         ppm         ASTM DS185(m)         >10         <1             Lead         ppm         ASTM DS185(m)         >20         0             Antimony         ppm         ASTM DS185(m)         >20         0             Antimony         ppm         ASTM DS185(m)         0              Antimony         ppm         ASTM DS185(m)         0              Antimony         ppm         ASTM DS185(m)         0              Antinony         ppm         ASTM DS185(m	CONTAMINATIO	ON	method	limit/base	current	history1	history2
Iron         ppm         ASTM D5185(m)         >20         <1	Water		WC Method	>0.05	NEG		
Chromium         ppm         ASTM D5185(m)         >10         0             Nickel         ppm         ASTM D5185(m)         >10         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185(m)         >10         <1             Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >20         0             Lead         ppm         ASTM D5185(m)         >20         0             Copper         ppm         ASTM D5185(m)         >20         0             Antimony         ppm         ASTM D5185(m)         0         0             Antimony         ppm         ASTM D5185(m)         0              Cadmium         ppm         ASTM D5185(m)         0              Boron         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         0              Magnesium         ppm         ASTM D5185(m)         0	Iron	ppm	ASTM D5185(m)	>20	<1		
Nickel         ppm         ASTM D5185(m)         >10         <1             Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         >10         <1	Chromium		ASTM D5185(m)	>10			
Titanium         ppm         ASTM D5185(m)         0             Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >10         <1	Nickel			>10	<1		
Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >20         0             Lead         ppm         ASTM D5185(m)         >20         0             Copper         ppm         ASTM D5185(m)         >20         0             Antimony         ppm         ASTM D5185(m)         >10         0             Vanadium         ppm         ASTM D5185(m)         0              Antimony         ppm         ASTM D5185(m)         0	Titanium						
Aluminum         ppm         ASTM D5185(m)         >10         <1             Lead         ppm         ASTM D5185(m)         >20         0             Copper         ppm         ASTM D5185(m)         >20         0             Antimony         ppm         ASTM D5185(m)         >10         0             Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Magnese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         <1							
Lead         ppm         ASTM D5168(m)         >20         0             Copper         ppm         ASTM D5188(m)         >20         0             Tin         ppm         ASTM D5188(m)         >10         0             Antimony         ppm         ASTM D5188(m)         0             Vanadium         ppm         ASTM D5188(m)         0             Beryllium         ppm         ASTM D5188(m)         0             Cadmium         ppm         ASTM D5188(m)         0             ADDITVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5188(m)         <1	Aluminum		ASTM D5185(m)	>10	<1		
Copper         ppm         ASTM D5188(m)         >20         0             Tin         ppm         ASTM D5188(m)         >10         0             Antimony         ppm         ASTM D5188(m)         0             Vanadium         ppm         ASTM D5188(m)         0             Beryllium         ppm         ASTM D5188(m)         0             Cadmium         ppm         ASTM D5188(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5188(m)         <1			. ,				
Tin         ppm         ASTM D5185(m)         >10         0             Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Magnesse         ppm         ASTM D5185(m)         <1					-		
Antimony         ppm         ASTM D5185(m)         0             Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Magnese         ppm         ASTM D5185(m)         <1	••		× 7				
Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Barium         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Calcium         ppm         ASTM D5185(m)         <1					-		
Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         <1	,				-		
Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         <1             Barium         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         <1             Calcium         ppm         ASTM D5185(m)         <1             Calcium         ppm         ASTM D5185(m)         <1             Calcium         ppm         ASTM D5185(m)         <1             Sulfur         ppm         ASTM D5185(m)         <1             Sulfur         ppm         ASTM D5185(m)         >15         <1             Solicon         ppm         ASTM D5185(m)         >20					-		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         <1			× 7				
Boron         ppm         ASTM D5185(m)         <1		ppm		limit/hase		history1	
Barium         ppm         ASTM D5185(m)         0            Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         <1							Thotory 2
Molybdenum         ppm         ASTM D5185(m)         0             Manganese         ppm         ASTM D5185(m)         <1	Boron	nnm	ASTM D5185(m)		~1		
Manganese         ppm         ASTM D5185(m)         0             Magnesium         ppm         ASTM D5185(m)         <1							
Magnesium         ppm         ASTM D5185(m)         <1             Calcium         ppm         ASTM D5185(m)         <1	Barium	ppm	ASTM D5185(m)		0		
Calcium         ppm         ASTM D5185(m)         <1             Phosphorus         ppm         ASTM D5185(m)         400         1             Zinc         ppm         ASTM D5185(m)         400         1             Sulfur         ppm         ASTM D5185(m)         400         1             Sulfur         ppm         ASTM D5185(m)         149              Lithium         ppm         ASTM D5185(m)         <1	Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 0		
Phosphorus         ppm         ASTM D5185(m)         <1             Zinc         ppm         ASTM D5185(m)         400         1             Sulfur         ppm         ASTM D5185(m)         400         1             Sulfur         ppm         ASTM D5185(m)         149             Lithium         ppm         ASTM D5185(m)         <1	Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 0		
Zinc         ppm         ASTM D5185(m)         400         1             Sulfur         ppm         ASTM D5185(m)         149             Lithium         ppm         ASTM D5185(m)         <1	Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 0 <1		
Sulfur         ppm         ASTM D5185(m)         149             Lithium         ppm         ASTM D5185(m)         <1	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 <1 <1		  
Lithium         ppm         ASTM D5185(m)         <1             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >15         <1             Sodium         ppm         ASTM D5185(m)         >15         <1             Sodium         ppm         ASTM D5185(m)         >20         0             Potassium         ppm         ASTM D5185(m)         >20         0             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         1137             Particles >6µm         ASTM D7647         >1300         314             Particles >14µm         ASTM D7647         >40         7             Particles >38µm         ASTM D7647         >10         1             Particles >71µm         ASTM D7647         >3         0       <	Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	400	0 0 <1 <1 <1		   
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >15         <1	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	400	0 0 <1 <1 <1 <1 1		   
Silicon         ppm         ASTM D5185(m)         >15         <1	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 <1 <1 <1 <1 1 1 149		   
Sodium         ppm         ASTM D5185(m)         0             Potassium         ppm         ASTM D5185(m)         >20         0             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         1137             Particles >6µm         ASTM D7647         >1300         314             Particles >14µm         ASTM D7647         >160         30             Particles >21µm         ASTM D7647         >40         7             Particles >38µm         ASTM D7647         >10         1             Particles >71µm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 0 <1 <1 <1 <1 1 149 <1		
Potassium         ppm         ASTM D5185(m)         >20         0             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         >5000         1137             Particles >6µm         ASTM D7647         >1300         314             Particles >14µm         ASTM D7647         >160         30             Particles >14µm         ASTM D7647         >40         7             Particles >21µm         ASTM D7647         >10         1             Particles >38µm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b>	limit/base	0 0 <1 <1 <1 <1 1 1 149 <1 current	     history1	      history2
FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         1137             Particles >6μm         ASTM D7647         >1300         314             Particles >6μm         ASTM D7647         >160         30             Particles >14μm         ASTM D7647         >40         7             Particles >21μm         ASTM D7647         >10         1             Particles >38μm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m)	limit/base	0 0 <1 <1 <1 <1 <1 1 149 <1 current <1	     history1	      history2
Particles >4μm         ASTM D7647         >5000         1137             Particles >6μm         ASTM D7647         >1300         314             Particles >6μm         ASTM D7647         >160         30             Particles >14μm         ASTM D7647         >160         30             Particles >21μm         ASTM D7647         >40         7             Particles >38μm         ASTM D7647         >10         1             Particles >71μm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>method</b> ASTM D5185(m) ASTM D5185(m)	limit/base >15	0 0 <1 <1 <1 <1 <1 1 149 <1 current <1 0	     history1	      history2
Particles >6μm         ASTM D7647         >1300 <b>314</b> Particles >14μm         ASTM D7647         >160 <b>30</b> Particles >14μm         ASTM D7647         >40 <b>7</b> Particles >21μm         ASTM D7647         >10 <b>1</b> Particles >38μm         ASTM D7647         >3 <b>0</b>	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) <b>Method</b> ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20	0 0 () () () () () () () () () () () () ()	      history1	      history2  
Particles >14μm         ASTM D7647         >160 <b>30</b> Particles >21μm         ASTM D7647         >40 <b>7</b> Particles >38μm         ASTM D7647         >10 <b>1</b> Particles >71μm         ASTM D7647         >3 <b>0</b>	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base	0 0 () () () () () () () () () () () () ()	      history1	      history2  
Particles >21μm         ASTM D7647         >40         7             Particles >38μm         ASTM D7647         >10         1             Particles >71μm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)           ASTM D5185(m)	limit/base >15 >20 limit/base >5000	0 0 (0 <1 <1 <1 1 1 149 <1 (1) (1) (1) 0 0 0 (1) (1) 1137	     history1   history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li></li> <li>history2</li> </ul>
Particles >38μm         ASTM D7647         >10         1             Particles >71μm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)           ASTM D5185(m)	limit/base >15 >20 limit/base >5000	0 0 (0 <1 <1 <1 1 1 149 <1 (1) (1) (1) 0 0 0 (1) (1) 1137	      history1  history1  history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li>history2</li> </ul>
Particles >71μm         ASTM D7647         >3         0	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base >15 >20 limit/base >5000 >1300	0 0 () () () () () () () () () () () () ()	      history1  history1  history1	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li>history2</li> </ul>
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160	0 0 () () () () () () () () () () () () ()	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history1</li> <li></li> <li><!--</td--><td><ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li></ul></td></li></ul>	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history2</li> <li></li> <li>history2</li> <li></li> <li></li></ul>
Oil Cleanliness ISO 4406 (c) >19/17/14 17/15/12	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40	0 0 () () () () () () () () () () () () ()	<ul> <li></li> <li></li> <li></li> <li></li> <li></li> <li>history1</li> <li></li> <li>history1</li> <li></li> <li></li></ul>	       history2  history2  history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10	0 0 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	history1 history1 <td> history2 history2</td>	history2 history2
	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANT Silicon Sodium Potassium FLUID CLEANLI Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >15 >20 limit/base >5000 >1300 >160 >40 >10 >3	0 0 () () () () () () () () () ()	history1 history1 <td><ul> <li></li> <li< td=""></li<></ul></td>	<ul> <li></li> <li< td=""></li<></ul>



## **OIL ANALYSIS REPORT**



Contact/Location: Sam Nash - HIBSTJ