

## Lubricant Analysis Report

North America: +1-877-458-3315



Overall report severity based on comments

Account Information	Component Information	Sample Information
Account Number: OILANA-7501-2300	Component ID: SWANSON ISX	Tracking Number: 15295Y02372
Company Name: VALLEY SYNTHETICS	Secondary ID: BOB SWANSON	Lab Number: S-632297
Contact: RICH LENTES	Component Type: DIESEL ENGINE	Lab Location: Salt Lake City
Address: POB 25	Manufacturer: CUMMINS	Data Analyst: JDT
VERADALE, WA 99037 US	Model: ISX	Sampled: 14-Mar-2016
Phone Number: 509-924-3206	Application: O-T-R TRUCKING	Submitted: 15-Mar-2016
	Sump Capacity: 11 gal	Received: 17-Mar-2016
		Completed: 18-Mar-2016
Filter Information	Miscellaneous Information	Product Information
Filter Type: FULLFLOW		Product Manufacturer: SHELL
Micron Rating: 0		Product Name: ROTELLA T
-		Viscosity Grade: SAE 15W40

equipment and fluid conditions. Copper is at a MINOR LEVEL; COPPER is most likely LEACHING into the oil via the OIL COOLER core tubing. This typically DOES NOT REQUIRE MAINTENANCE ACTION unless there is evidence of COOLANT in the oil; FLAGGED ADDITIVE levels indicate slight LUBE MIXING; Lubricant and filter change acknowledged. Your note was taken into consideration.																							
Wear Metals (ppm)										itamin		Multi-Source Metals (ppm)						Additive Metals (ppm)					

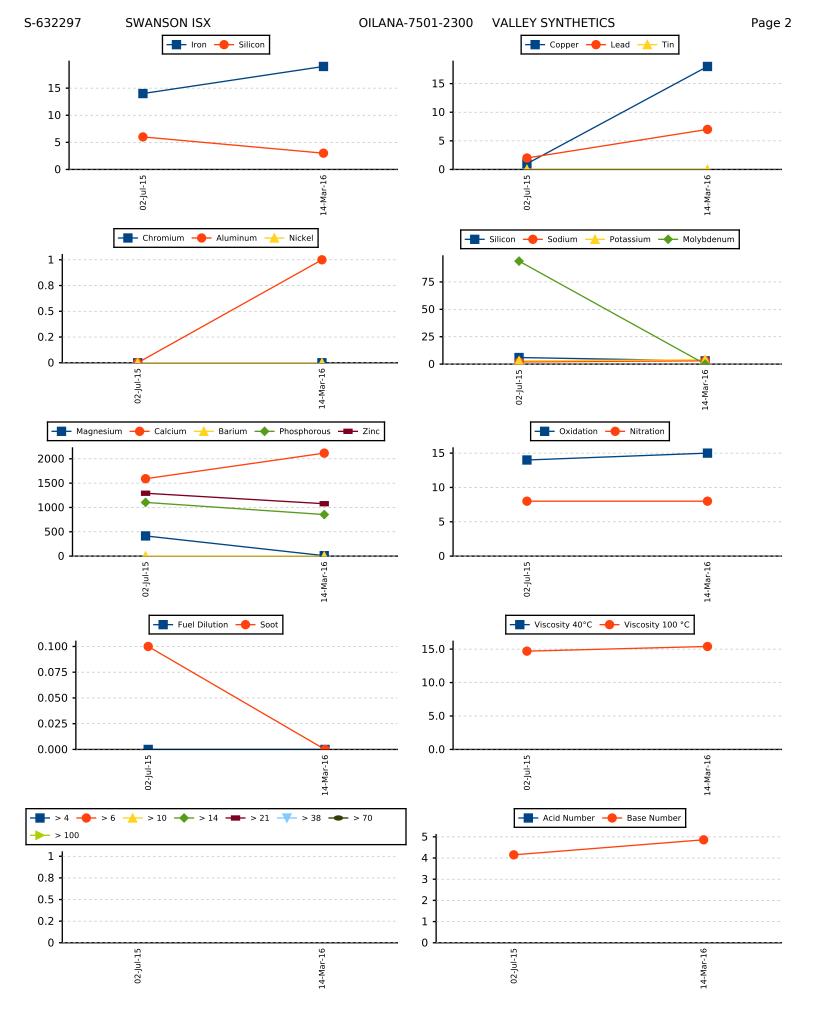
	Wear Metals (ppm)									Metals (ppm)			Multi-Source Metals (ppm)					Additive Metals (ppm)						
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorous	Zinc
1	14	0	0	0	1	2	0	0	0	0	6	2	3	0	94	1	0	0	399	415	1591	0	1104	1292
2	19	0	0	1	18	7	0	0	0	0	3	3	4	0	0	0	0	0	18	9	2117	0	854	1077

		Sampl	e Infor	mation					Contaminants			F	luid Pr	opertie	S	
mple #	e Sampled	e Received	Lube Time	Unit Time	e Change	Lube Added	er Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100°C	Acid Number	Base Number	Oxidation	1.0\sde
Sar	Dat	Date	mi	mi	Lub	qt	Filte	% Vol	% Vol	% Vol	cSt	cSt	mg KOH/g	mg KOH/g	abs/cm	
1	02-Jul-2015	07-Jul-2015	6500	856321	No	0	No	<1 - Estimate	0.1 - E2412	<.1 - FTIR		14.7		4.15	14	8
2	14-Mar-2016	17-Mar-2016	19577	944006	Yes	2	Yes	<1 - Estimate	<.1	<.1 - FTIR		15.4		4.86	15	8

				Additional Testing							
#											
<u>e</u>	ISO Code										
Sample	Based On	> 4	> 6	> 10	> 14	> 21	> 38	> 70	> 100		
Š	4/6/14	μm	μm	μm	μm	μm	μm	μm	μm	Method	
1	//										
2	//										

Comments are advisory only and are based on the assumption that the sample and data submitted are valid. Missing fluid or component information limits the evaluation. No warranty is expressed or implied.

Historical Comments Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Base Number is SLIGHTLY LOW. As Base Number depletes, the ability to neutralize acids is diminished and corrosive wear may occur. Sludge and deposits may form. Flagged additive levels are different than what should be present for the lubricant identified for this component. This does not imply that the lubricant does not meet proper API, SAE, or ISO classifications.



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