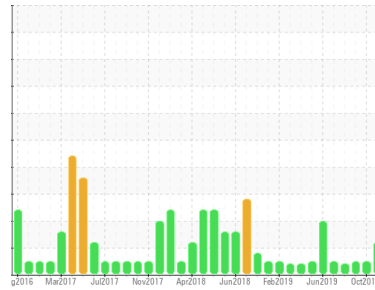
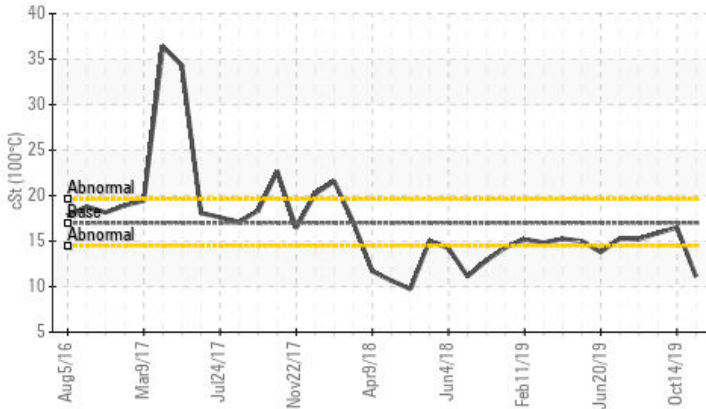


Area  
**EAGLEFORD DILLEY AMINE**  
Machine Id  
**9300 (S/N F-51098)**  
Component  
**Reciprocating Compressor**  
Fluid  
**TULCO LUBSOIL DGP 150 (25 GAL)**

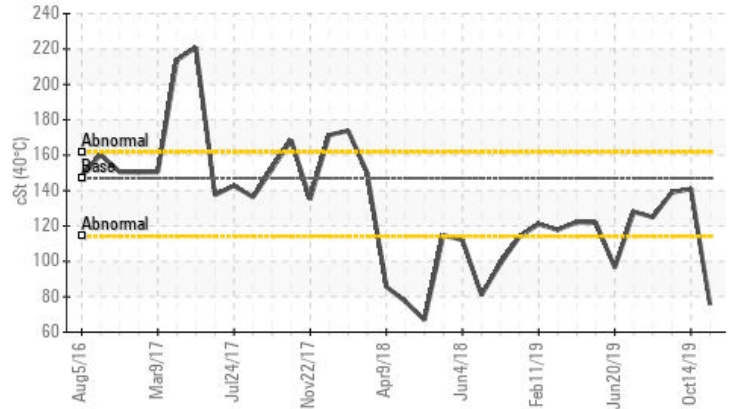


## COMPONENT CONDITION SUMMARY

▲ Viscosity @ 100°C



▲ Viscosity @ 40°C



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

## PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	NORMAL	NORMAL
Debris	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Visc @ 40°C	cSt	ASTM D445	147	▲ 75.8	141	139
Visc @ 100°C	cSt	ASTM D445	17	▲ 11.1	16.5	15.9

Customer Id: WILPEA  
Sample No.: TO204845457  
Lab Number: 04845457  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

To change component or sample information:  
Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	MISSED	Dec 11 2019	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

## HISTORICAL DIAGNOSIS

### 14 Oct 2019 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 28 Aug 2019 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



### 10 Aug 2019 Diag: Don Baldrige

ISO

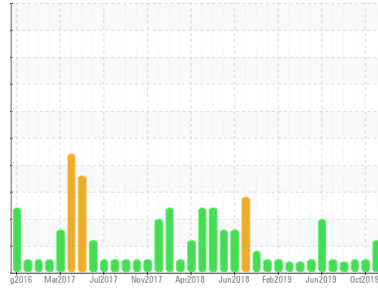


No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Area  
**EAGLEFORD DILLEY AMINE**  
 Machine Id  
**9300 (S/N F-51098)**  
 Component  
**Reciprocating Compressor**  
 Fluid  
**TULCO LUBSOIL DGP 150 (25 GAL)**



**DIAGNOSIS**

- Recommendation**  
 We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.
- Wear**  
 All component wear rates are normal.
- Contamination**  
 Moderate concentration of visible dirt/debris present in the oil.
- Fluid Condition**  
 The oil viscosity is lower than normal. Confirm oil type. The AN level is acceptable for this fluid.

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>TO204845457</b>	TO204826580	TO204792258
Sample Date	Client Info		<b>05 Nov 2019</b>	14 Oct 2019	28 Aug 2019
Machine Age	hrs	Client Info	<b>24621</b>	24132	23007
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	N/A	N/A
Sample Status			<b>ABNORMAL</b>	NORMAL	NORMAL

**WEAR METALS**

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>&lt;1</b>	<1	1
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m >25	<b>0</b>	0	0
Lead	ppm	ASTM D5185m >25	<b>0</b>	17	<1
Copper	ppm	ASTM D5185m >50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	<1

**ADDITIVES**

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	<1	1
Barium	ppm	ASTM D5185m	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185m	<b>&lt;1</b>	2	1
Phosphorus	ppm	ASTM D5185m 92	<b>78</b>	85	84
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m 1600	<b>960</b>	1005	873

**CONTAMINANTS**

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	<1	2
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	<1
Water	%	ASTM D6304 >0.1	<b>0.037</b>	0.024	0.057
ppm Water	ppm	ASTM D6304 >1000	<b>373.0</b>	244.3	578.3

**FLUID CLEANLINESS**

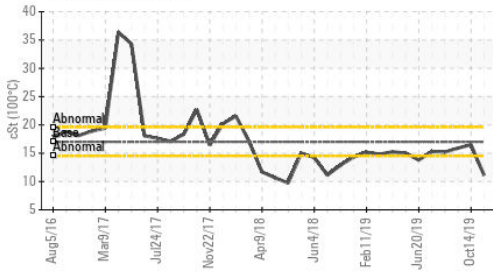
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>---</b>	131	2371
Particles >6µm	ASTM D7647	>2500	<b>---</b>	34	1292
Particles >14µm	ASTM D7647	>320	<b>---</b>	5	220
Particles >21µm	ASTM D7647	>80	<b>---</b>	2	74
Particles >38µm	ASTM D7647	>20	<b>---</b>	0	11
Particles >71µm	ASTM D7647	>4	<b>---</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>---</b>	14/12/10	18/17/15

**FLUID DEGRADATION**

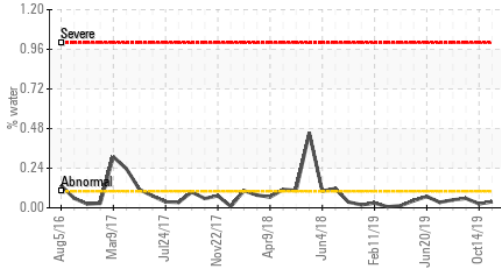
	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.353	<b>1.650</b>	0.436	0.790

# OIL ANALYSIS REPORT

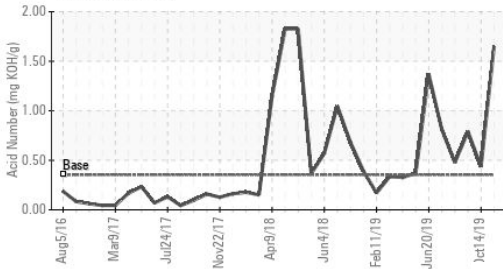
▲ Viscosity @ 100°C



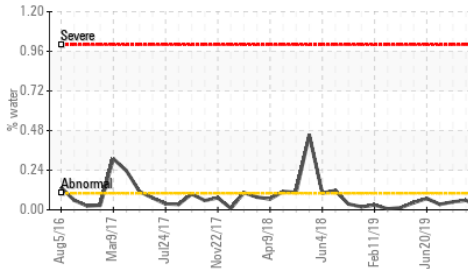
Water



Acid Number



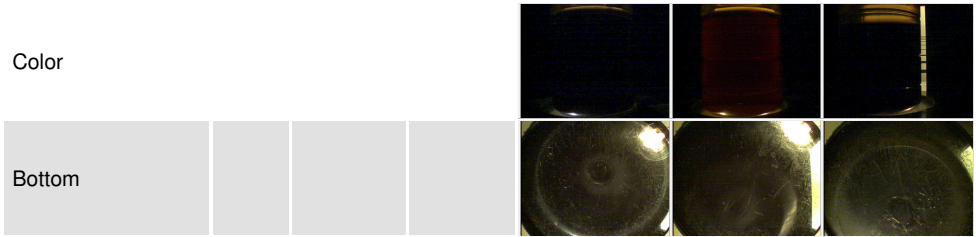
Water



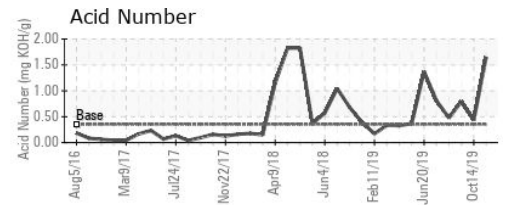
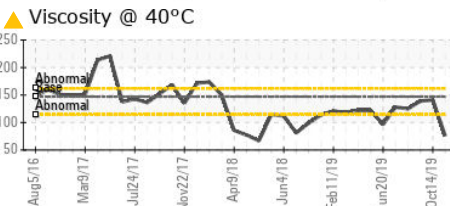
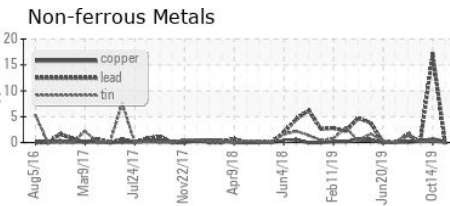
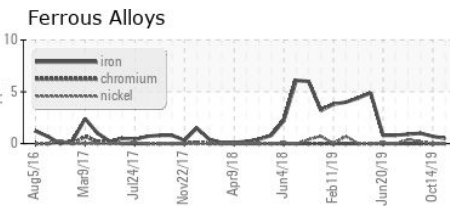
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	147	▲ 75.8	141
Visc @ 100°C	cSt	ASTM D445	17	▲ 11.1	16.5
Viscosity Index (VI)	Scale	ASTM D2270	125	136	125

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO204845457 **Received** : 13 Nov 2019  
**Lab Number** : 04845457 **Diagnosed** : 18 Nov 2019  
**Unique Number** : 8815397 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, KV100, PrtCount, VI )

**WILLIAMS ENERGY**  
 9013 CHESAPEAKE WAY  
 PEARSALL, TX  
 US 78061  
 Contact: BILLY HARRISON  
 billy.harrison@williams.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - 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)

T:  
F: