

Chavez, Carl J, EMNRD

From: Jones, Timothy <tjones@subsurfacegroup.com>
Sent: Monday, October 05, 2015 7:54 AM
To: Chavez, Carl J, EMNRD; Schultz, Michele
Subject: Navajo 2015 MIT (Annulus Pressure Tests) Report
Attachments: 2015 Navajo APT (MIT) Report (Final).pdf

Carl,

Please find attached the 2015 MIT Report for WDW-1, WDW-2, and WDW-3. Please let me know of any changes.

Thanks,

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2015 ANNULUS PRESSURE TEST (MIT)
NAVAJO REFINING

WDW NO. 1 MEWBOURNE (30-015-27592)

WDW NO. 2 CHUKKA (30-015-20894)

WDW NO. 3 GAINES (30-015-26575)

ARTESIA, NM

SEPTEMBER 21, 2015

SUBSURFACE TECHNOLOGY, INC.

Houston, TX

A Company of



Project No. 185818-7176

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EXECUTIVE SUMMARY

Subsurface Construction Corp. (Subsurface) conducted annulus pressure tests (MITs) on WDW-1 Mewbourne, WDW-2 Chukka, and WDW-3 Gaines on Monday, September 21, 2015. The tests were not witnessed by a NM OCD representative. The tests were witnessed by Hank Lichtenwaldt for Subsurface. All annulus pressure tests were successful.

1.0 ANNULUS PRESSURE TEST FOR WDW-1

On September 21, a 1000 psig chart recorder, with spring weight 0-1000 psig, was rigged up to the casing-tubing annulus via a 2 inch bull plug with ½” NPT connection. The annulus line from the well annulus monitoring system (WAMS) to the wellhead was blocked in and the annulus pressure was recorded from 1352 hours to 1423 hours. During this 30-minute test, the annulus pressure increased from 645 psig to 655 psig. The 10 psig change in annulus pressure is within the NM OCD maximum allowable $\pm 10\%$ annulus pressure change. The change in annulus pressure was 1.55%. This successful annulus pressure chart can be found in Appendix A. The chart calibration sheet can be found in Appendix D.

2.0 ANNULUS PRESSURE TEST FOR WDW-2

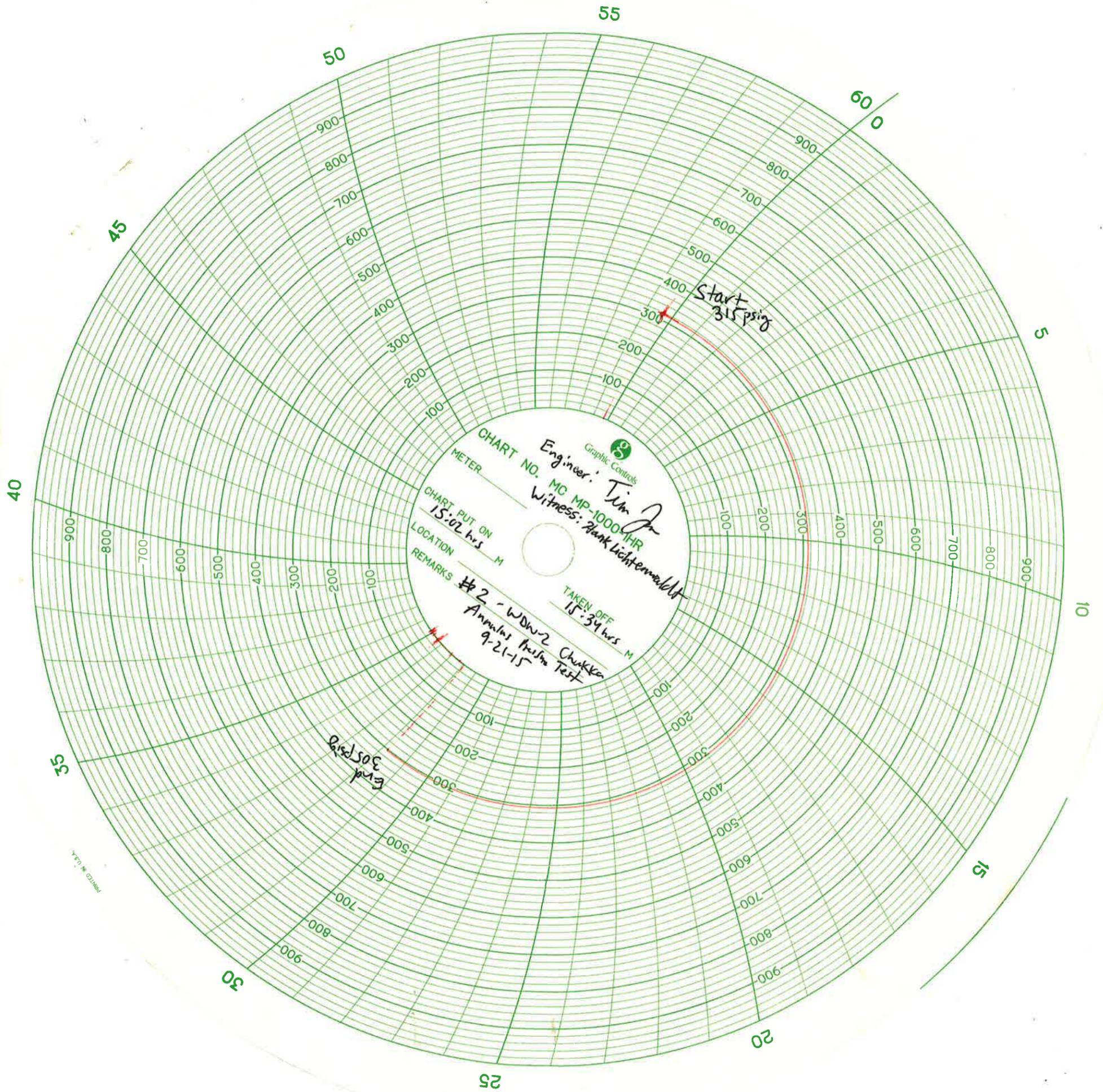
On September 21, a 1000 psig chart recorder, with spring weight 0 - 1000 psig, was rigged up to the casing-tubing annulus via a 2 inch bull plug with ½” NPT connection. The annulus line from the well annulus monitoring system (WAMS) to the wellhead was blocked in and the annulus pressure was recorded from 1502 hours to 1534 hours. During this 30 minute test, the annulus pressure decreased from 315 psig to 305 psig. The 10 psig change in annulus pressure is within the NM OCD maximum allowable $\pm 10\%$ annulus pressure change. The change in annulus pressure was 3.17%. This successful annulus pressure chart can be found in Appendix B. The chart calibration sheet can be found in Appendix D.

3.0 ANNULUS PRESSURE TEST FOR WDW-3

On September 21, a 1000 psig chart recorder, with spring weight 0 - 1000 psig, was rigged up to the casing-tubing annulus via a 2 inch bull plug with ½” NPT connection. The annulus line from the well annulus monitoring system (WAMS) to the wellhead was blocked in and the annulus pressure was recorded from 1632 hours to 1703 hours. During this 30 minute test, the annulus pressure increased from 705 psig to 710 psig. The 5 psig change in annulus pressure is within the NM OCD maximum allowable $\pm 10\%$ annulus pressure change. The change in annulus pressure was 0.71%. This successful annulus pressure chart can be found in Appendix C. The chart calibration sheet can be found in Appendix D.

4.0 CONCLUSIONS

The annulus pressure tests (MITs) were successful for all three disposal wells. Please refer to Appendix A-C for the pressure charts and Appendix D for the chart calibration sheet.



Wildcat Measurement Service, Inc.

416 East Main Street
 P.O. Box 1836
 Artesia, New Mexico 88211
 Office: (575)746-3481
 Toll Free: 1-888-421-9453

Calibration Certificate

Company Name: Globe Energy
 Recorder Type: Barton
 Recorder Serial:# 242A-8717

Recorder Pressure Range: 0-1000# Accuracy +/-: 0.2% PSIG
 Temperature Range: _____ Deg F.

Increasing Pressure			Decreasing Pressure		
Applied Pressure	Indicated Pressure	Error%	Applied Pressure	Indicated Pressure	Error%
0.0#	0.0#	0	800#	800#	0
100#	100#	0	600#	600#	0
300#	300#	0	400#	400#	0
500#	500#	0	200#	200#	0
700#	700#	0	0.0#	0.0#	0
1000#	1000#	0			

Temperature Test		
Applied Temperature	Indicated Temperature	Error%

Certified Calibration Instrument Used
 Gauge: Crystal
 Deadweight: _____

Remarks: _____

Calibration Date: 08/11/2015

Technician: Jonnie Aldrich