

Chappell, Michelle

From: Katrina Boyd <kboyd@forenergy.com>
Sent: Monday, October 16, 2017 1:56 PM
To: OGRregulatory
Subject: UL 20 Tensleep 1H/API 42-475-37120
Attachments: 12546727_Forge_H&P 602_UL 20 Tensleep 1-H_Survey.pdf; 12546727_Forge_H&P 602_UL 20 Tensleep 1-H_Survey.xlsx; Perforation Report - UL 20 TENSLEEP 1H.PDF; UL 20 Tensleep 1H P-8, P-4.pdf

*** External Mail ***

Prior to W-2 filing, please use the attached documents to set the well up in your system for royalty payments.


Directional Survey (PDF & Excel Format) – Attached
Perf Intervals – 12477-16282 (report attached)
Date of 1st Production: 9/6/2017
Products Reported: Oil, Gas
Oil Completion
P-8: Attached
P-4: Attached

Let me know if you have any questions.

Thank You,
Katrina
210-294-0474



Katrina Boyd
Operations Assistant, Forge Energy
(432) 219-3638

				Perforation Report				Spud Date (Original): 09/09/2016			
				Well Name: UL 20 Tensleep 1H							
Division: Delaware Basin County: Winkler State: Texas				Field Name: Phantom (Wolfcamp) API Number: 42-475-37120				KB-GL: 25.0 Ground Elevation: 2,760.0 KB Elevation: 2,785.0			
Perf Cluster Description Stage 1 - 16,217 -16,282				Cluster Type 3 1/8" Tag Gun 3 Cluster Perf Assembly							
Date/Time 07/27/2017 19:30:00		WellBore ORIGINAL HOLE		Reservoir		Related Project Completion (Jul 11 2017 7:00AM)		Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 22.7 Gram Charge											
Description Gun 3								Perf Type Gun			
Perf Top MD 16217.0		Perf Bottom MD 16218.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 9		Shot Size 0.420 Shot Density 6 Phasing 60.0	
Comment											
Description Gun 2								Perf Type Gun			
Perf Top MD 16249.0		Perf Bottom MD 16250.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 10		Shot Size 0.420 Shot Density 6 Phasing 60.0	
Comment											
Description Gun 1								Perf Type Gun			
Perf Top MD 16281.0		Perf Bottom MD 16282.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 11		Shot Size 0.420 Shot Density 6 Phasing 60.0	
Comment											
Perf Cluster Description Reperf Stage 1 16,230 - 16,276				Cluster Type TCP Guns							
Date/Time 08/19/2017 02:30:00		WellBore ORIGINAL HOLE		Reservoir		Related Project Completion (Jul 11 2017 7:00AM)		Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment											
Description TCP infil 3								Perf Type Gun			
Perf Top MD 16230.0		Perf Bottom MD 16231.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 9		Shot Size 0.420 Shot Density 6 Phasing 60.0	
Comment											
Description TCP infil 2								Perf Type Gun			
Perf Top MD 16255.0		Perf Bottom MD 16256.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 10		Shot Size 0.420 Shot Density 6 Phasing 60.0	
Comment											
Description TCP infil 1								Perf Type Gun			
Perf Top MD 16275.0		Perf Bottom MD 16276.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 11		Shot Size 0.420 Shot Density 6 Phasing 60.0	
Comment											
Perf Cluster Description Stage 2 - 16,093 - 16,186				Cluster Type 3 1/8" 4 Cluster Perf Assembly							
Date/Time 08/19/2017 20:45:00		WellBore ORIGINAL HOLE		Reservoir		Related Project Completion (Jul 11 2017 7:00AM)		Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.											
Description Gun 4								Perf Type Scalloped			
Perf Top MD 16093.0		Perf Bottom MD 16094.0		Perf Top VD 0.0		Perf Bottom VD 0.0		Shot Count 9		Shot Size 0.380 Shot Density 6 Phasing 60.0	
Comment											
Description Gun 3								Perf Type Scalloped			

Perf Top MD 16122.0	Perf Bottom MD 16123.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 16153.0	Perf Bottom MD 16154.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 16185.0	Perf Bottom MD 16186.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 3 15,886 - 16,015		Cluster Type 3 1/8" Tag Gun 4 Cluster Perf Assembly					
Date/Time 08/25/2017 16:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 22.7 Gram Charge.							
Description Gun 4				Perf Type Gun			
Perf Top MD 15886.0	Perf Bottom MD 15887.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Gun			
Perf Top MD 15934.0	Perf Bottom MD 15935.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Gun			
Perf Top MD 15982.0	Perf Bottom MD 15983.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Gun			
Perf Top MD 16014.0	Perf Bottom MD 16015.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 4 15,694-15,839		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/26/2017 17:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 15694.0	Perf Bottom MD 15695.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 15742.0	Perf Bottom MD 15743.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 15790.0	Perf Bottom MD 15791.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 15838.0	Perf Bottom MD 15839.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 5 15,503-15,638		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/27/2017 03:30:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			

			2017 7:00AM)					
Comment 19 Gram Charge.								
Description Gun 4				Perf Type Scalloped				
Perf Top MD 15503.0	Perf Bottom MD 15504.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 3				Perf Type Scalloped				
Perf Top MD 15551.0	Perf Bottom MD 15552.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 2				Perf Type Scalloped				
Perf Top MD 15589.0	Perf Bottom MD 15590.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 1				Perf Type Scalloped				
Perf Top MD 15637.0	Perf Bottom MD 15638.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Perf Cluster Description Stage 6 15,311-15,456		Cluster Type 3 1/8" 4 Cluster Perf Assembly						
Date/Time 08/27/2017 15:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)				
Comment 19 Gram Charge.								
Description Gun 4				Perf Type Scalloped				
Perf Top MD 15311.0	Perf Bottom MD 15312.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 3				Perf Type Scalloped				
Perf Top MD 15359.0	Perf Bottom MD 15360.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 2				Perf Type Scalloped				
Perf Top MD 15407.0	Perf Bottom MD 15408.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 1				Perf Type Scalloped				
Perf Top MD 15455.0	Perf Bottom MD 15456.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Perf Cluster Description Stage 7 - 15,120' - 15,264'		Cluster Type 3 1/8" 4 Cluster Perf Assembly						
Date/Time 08/28/2017 01:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)				
Comment 19 Gram Charge.								
Description Gun 4				Perf Type Scalloped				
Perf Top MD 15120.0	Perf Bottom MD 15121.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 3				Perf Type Scalloped				
Perf Top MD 15168.0	Perf Bottom MD 15169.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0	
Comment								
Description Gun 2				Perf Type Scalloped				
Perf Top MD 15215.0	Perf Bottom MD 15216.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0	

Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 15263.0	Perf Bottom MD 15264.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 8 - 14,928' - 15,073'		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/28/2017 06:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 14928.0	Perf Bottom MD 14929.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 14968.0	Perf Bottom MD 14969.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 15024.0	Perf Bottom MD 15025.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 15072.0	Perf Bottom MD 15073.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 9 - 14,736' - 14,881'		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/28/2017 17:15:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 14736.0	Perf Bottom MD 14737.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 14784.0	Perf Bottom MD 14785.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 14832.0	Perf Bottom MD 14833.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 14880.0	Perf Bottom MD 14881.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 10 14,546-14,690		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/29/2017 00:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			

Perf Top MD 14546.0	Perf Bottom MD 14547.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 14593.0	Perf Bottom MD 14594.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 14641.0	Perf Bottom MD 14642.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 14689.0	Perf Bottom MD 14690.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 11 14,353-14,498		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/29/2017 17:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 14353.0	Perf Bottom MD 14354.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 14401.0	Perf Bottom MD 14402.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 14449.0	Perf Bottom MD 14450.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 14497.0	Perf Bottom MD 14498.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 12 14,162-14,306		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/29/2017 23:45:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 14162.0	Perf Bottom MD 14163.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 14210.0	Perf Bottom MD 14211.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 14257.0	Perf Bottom MD 14258.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 14305.0	Perf Bottom MD 14306.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							

Perf Cluster Description Stage 13 13,960-14,115			Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/30/2017 05:45:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)				
Comment 19 Gram Charge.								
Description Gun 4				Perf Type Scalloped				
Perf Top MD 13960.0	Perf Bottom MD 13961.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 3				Perf Type Scalloped				
Perf Top MD 14018.0	Perf Bottom MD 14019.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 2				Perf Type Scalloped				
Perf Top MD 14066.0	Perf Bottom MD 14067.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 1				Perf Type Scalloped				
Perf Top MD 14114.0	Perf Bottom MD 14115.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Perf Cluster Description Stage 14 13,778-13,919			Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/30/2017 15:15:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)				
Comment 19 Gram Charge.								
Description Gun 4				Perf Type Scalloped				
Perf Top MD 13778.0	Perf Bottom MD 13779.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 3				Perf Type Scalloped				
Perf Top MD 13826.0	Perf Bottom MD 13827.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 2				Perf Type Scalloped				
Perf Top MD 13874.0	Perf Bottom MD 13875.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 1				Perf Type Scalloped				
Perf Top MD 13918.0	Perf Bottom MD 13919.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Perf Cluster Description Stage 15 13,587-13,732			Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/30/2017 23:15:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)				
Comment 19 Gram Charge.								
Description Gun 4				Perf Type Scalloped				
Perf Top MD 13587.0	Perf Bottom MD 13588.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment								
Description Gun 3				Perf Type Scalloped				
Perf Top MD 13635.0	Perf Bottom MD 13636.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0

Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 13683.0	Perf Bottom MD 13684.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 13731.0	Perf Bottom MD 13732.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 16 13,395-13,540		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/31/2017 05:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 13395.0	Perf Bottom MD 13396.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 13443.0	Perf Bottom MD 13444.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 13491.0	Perf Bottom MD 13492.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 13539.0	Perf Bottom MD 13540.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 17 13,204-13,348		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/31/2017 10:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 13204.0	Perf Bottom MD 13205.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 13252.0	Perf Bottom MD 13253.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 13299.0	Perf Bottom MD 13300.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 13347.0	Perf Bottom MD 13348.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 18 13,012-13,157		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 08/31/2017 16:30:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			

			7:00AM)						
Comment 19 Gram Charge.									
Description Gun 4					Perf Type Scalloped				
Perf Top MD 13012.0		Perf Bottom MD 13013.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 3					Perf Type Scalloped				
Perf Top MD 13060.0		Perf Bottom MD 13061.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 2					Perf Type Scalloped				
Perf Top MD 13102.0		Perf Bottom MD 13103.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 1					Perf Type Scalloped				
Perf Top MD 13156.0		Perf Bottom MD 13157.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Perf Cluster Description Stage 19 12,820-12,965			Cluster Type 3 1/8" 4 Cluster Perf Assembly						
Date/Time 08/31/2017 21:30:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)					
Comment 19 Gram Charge.									
Description Gun 4					Perf Type Scalloped				
Perf Top MD 12820.0		Perf Bottom MD 12821.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 3					Perf Type Scalloped				
Perf Top MD 12868.0		Perf Bottom MD 12869.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 2					Perf Type Scalloped				
Perf Top MD 12916.0		Perf Bottom MD 12917.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 1					Perf Type Scalloped				
Perf Top MD 12964.0		Perf Bottom MD 12965.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Perf Cluster Description Stage 20 12,649-12,779			Cluster Type 3 1/8" 4 Cluster Perf Assembly						
Date/Time 09/01/2017 05:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)					
Comment 19 Gram Charge.									
Description Gun 4					Perf Type Scalloped				
Perf Top MD 12649.0		Perf Bottom MD 12650.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 3					Perf Type Scalloped				
Perf Top MD 12692.0		Perf Bottom MD 12693.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									
Description Gun 2					Perf Type Scalloped				
Perf Top MD 12735.0		Perf Bottom MD 12736.0		Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment									

Description Gun 1				Perf Type Scalloped			
Perf Top MD 12778.0	Perf Bottom MD 12779.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Perf Cluster Description Stage 21 - 12,477' - 12,607'		Cluster Type 3 1/8" 4 Cluster Perf Assembly					
Date/Time 09/01/2017 09:00:00	WellBore ORIGINAL HOLE	Reservoir	Related Project Completion (Jul 11 2017 7:00AM)	Perf Inside Of 4.5 LINER (Jul 15 2017 10:00AM)			
Comment 19 Gram Charge.							
Description Gun 4				Perf Type Scalloped			
Perf Top MD 12477.0	Perf Bottom MD 12478.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 9	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 3				Perf Type Scalloped			
Perf Top MD 12520.0	Perf Bottom MD 12521.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 2				Perf Type Scalloped			
Perf Top MD 12563.0	Perf Bottom MD 12564.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 10	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							
Description Gun 1				Perf Type Scalloped			
Perf Top MD 12606.0	Perf Bottom MD 12607.0	Perf Top VD 0.0	Perf Bottom VD 0.0	Shot Count 11	Shot Size 0.380	Shot Density 6	Phasing 60.0
Comment							

Printed: 9/26/2017 9:38:22 AM