

Morning Report PNR1z

Management System:	HSE	File Name:	068_PNR1z_14.12.18_RMR	
Approver:	Senior Geoscientist	Version No:	2	
Reviewer:	Frac Manager	Date of Issue:	15 th December 2018	
Author:	Senior Frac Engineer	Proposed date of Review:	n/a	
Version	Section	Revision Information	Date	Reviser
0.1	All	Draft Publication	15/12/2018	Senior Frac Engineer

Documents are reviewed as per proposed review date, or sooner if a significant change to the operation has taken place, to ensure relevance to the systems and process that they define.

Summary

Overview of day's operations (midnight to midnight):

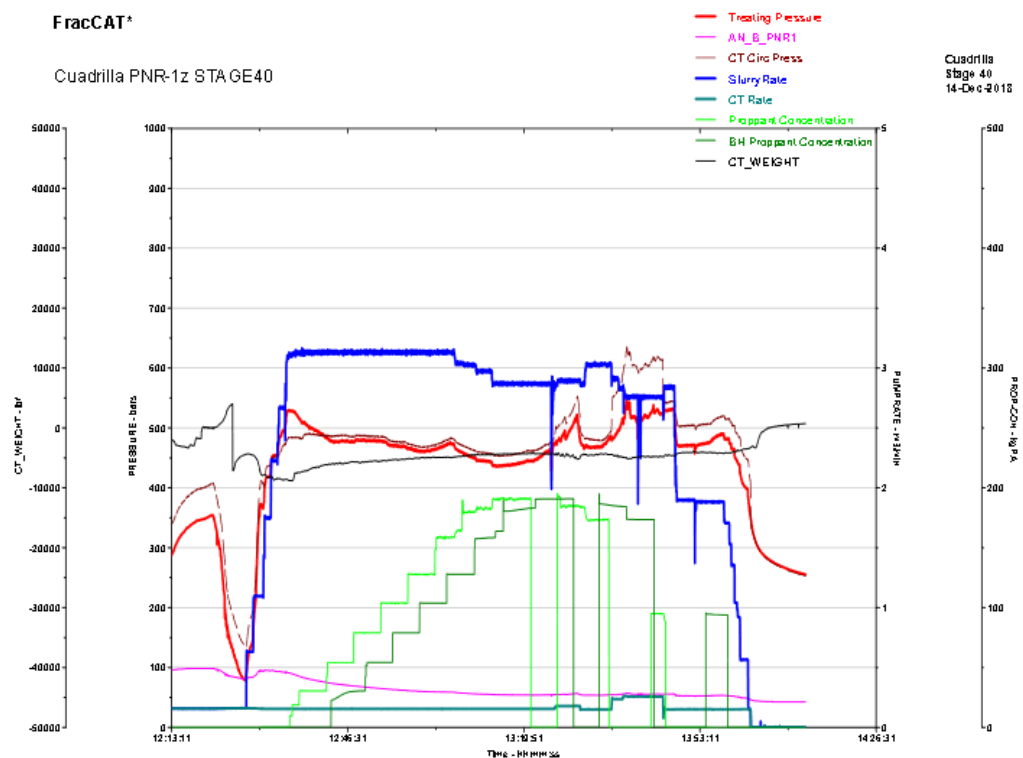
- Opened and proppant fractured sleeve 40. Flowed back well.
- Immediate post-frac flowback performed
- Induced seismicity: yes (see below)
- No red line boundary breached

Injection Summary

Stage 40

Injection Depth m (RT)	Volume (fluid m3, proppant tonne)	Fluid System	Additives (type, mass kg, %)
-2681.9 m MDRT	Slickwater (248.9 m ³ & 19.7 T) 10% HCl (1.5 m ³)	Slickwater HCl	B528 Friction Reducer, Slickwater – 59.0 kg – 0.02%
-2344.0 m TVDRT			

Injection Chart

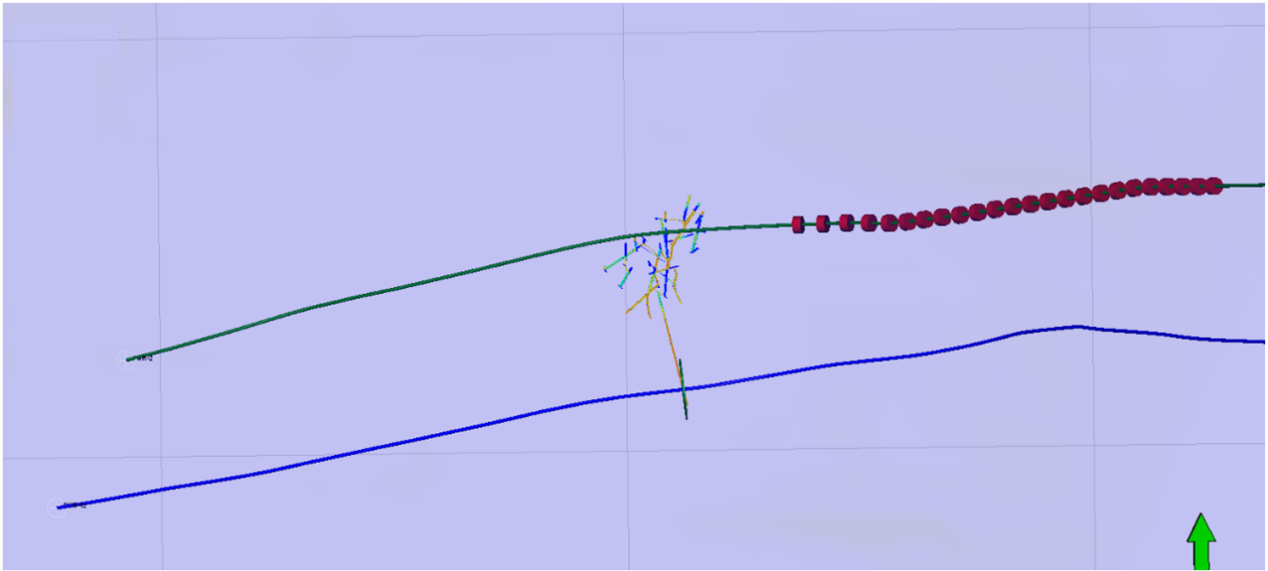


Pumping Time:

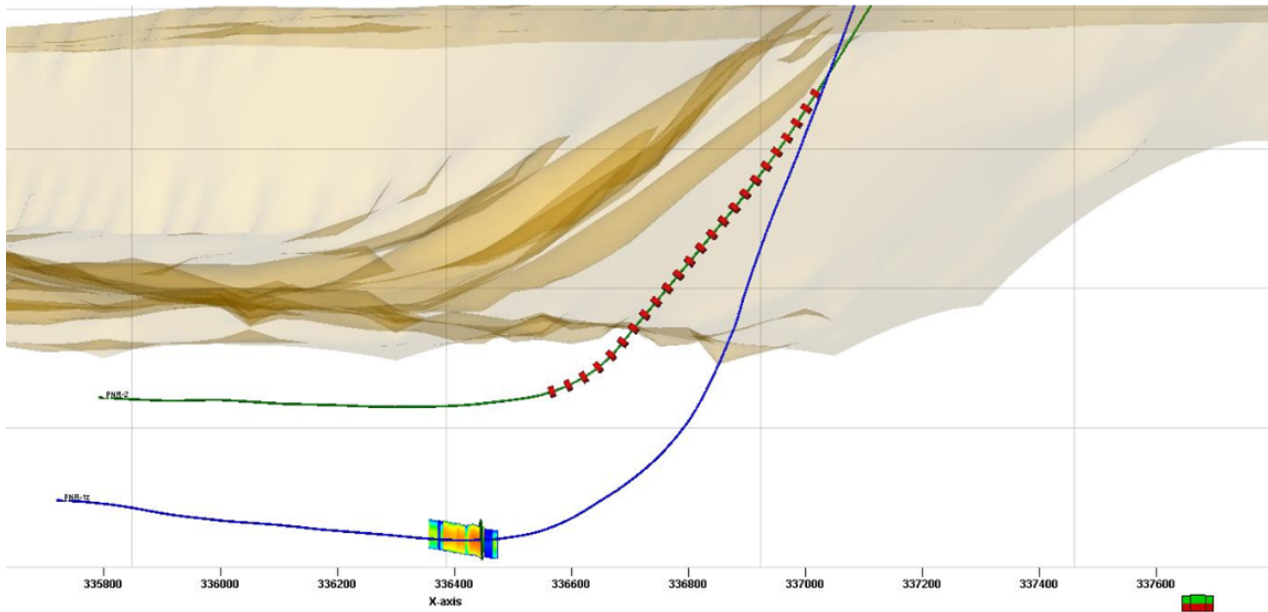
1) 14/12/2018 12:27:17 - 14/12/2018 14:02:46

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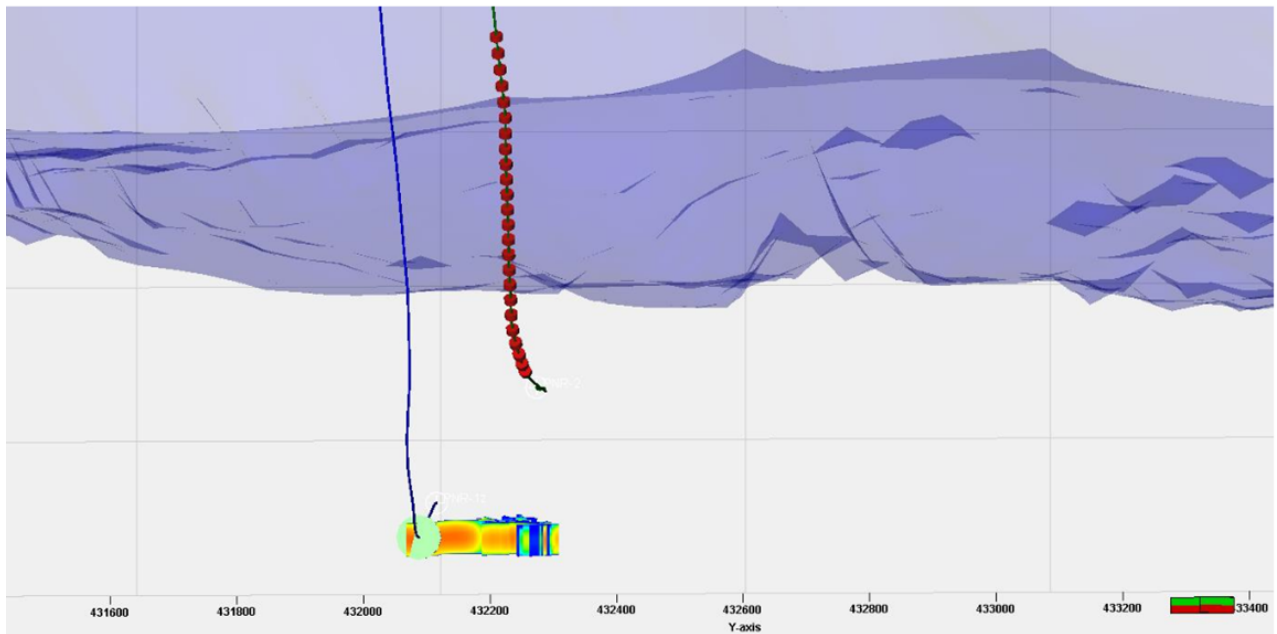
Fracture Growth



- Map View, scale north bar



- X-section due north



- X-section due east
- Max hydraulic frac half length: 116.9 m
- Hydraulic frac height at well: 53.9 m

Well Integrity Status

- No change

Seismicity of Note

- 14/12/2018 13:09:51 - $M_L = 0.1$
- 14/12/2018 13:41:05 - $M_L = 0.9$

Update to Stress Magnitude

- No update to stress magnitude as closure was not observed
- $S_{Hmin} = 0.0148 \text{ MPa/m}$