# IODP EXP 358 Daily Geomechanics Report Report #084 20190201

# **RTG Team**

RTG Supervisor(s)	David Castillo / Thomas Finkbeiner / Demian Saffer
RTG Watch Lead (00:00-12:00)	Kan Aoike
RTG Watch Lead (12:00-24:00)	Emily Wisbey

# **Well Status**

Site Name:	C0002		Hole Name:	S	
Water Depth:	1,939.0	m	RT-MSL:	28.5	m
0600h Hole Depth:	4,779.0 (4,777.0)	mBRT (mTVD)	Section TD:	6,000.0 (5,998.0)	mBRT (mTVD)
Section #:	1		CSG Depth/Size:	4,818.0 11-3/4" ESET	mBRT inches
Static MW:	1.39	sg	Current ECD:	-	sg
FIT/LOT/ XLOT:	N/A Note: 1.46sg FIT @ 4,757mBRT				
Current formation/ lithology:	Shale				
Sensor Offsets from the Bit:	N/A				
Other BHA Offsets from the Bit:	N/A				
Current Operations:	Continued RIH Whipstock and Milling BHA. Settled Whipstock at 4778.5 mBRT successfully. Cut window from 4769.5 mBRT to 4773 mBRT then drilled down rat hole to 4779 mBRT. Performed circulation for hole cleaning.				

## **Geomechanics Alert**

GREEN	Green = Projected model remains accurate  White = Unanticipated deviation from model which should not affect drilling  Yellow = Unanticipated deviation from model which may affect drilling  Red = Imminent requirement to stop drillin80
Basis for Alert Level + Recommendations	1.39 sg remains recommended MW for C2S.  However, the kick-off borehole for the planned C2S side-track will occur within several metres of the C2P hole. This is because region around the C2P hole has been severely damaged and could induce significant wellbore instabilities at the window junction and beyond due to the current fragile nature of the rock/structure. If hole collapse were to occur in C2S, it is more likely to occur within a short distance from the C2S window. To help minimize this wellbore instability risk, the continued application of FracSeal in the same amounts as previously used (preferably more FracSeal) could help avoid or minimize drilling fluid invasion into the cracks/fractures. The aperture of these cracks and fractures is not known, which is why additional FracSeal material might help seal these fragile cracks (if not mixed with other mud sealant additives). To further reduce the risk of drilling fluid invasion, the mud weight can be reduced back to 1.37 sg.

# **Principal Findings**

N/A

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## **Observations Summary**

Fracture Gradient	N/A
Pore Pressure	N/A
Wellbore Breakout	N/A
Tensile Failure	N/A
<b>Drilling Parameters</b>	N/A
Other	N/A

## **Analysis**

#### **Drilling Experience Analysis**

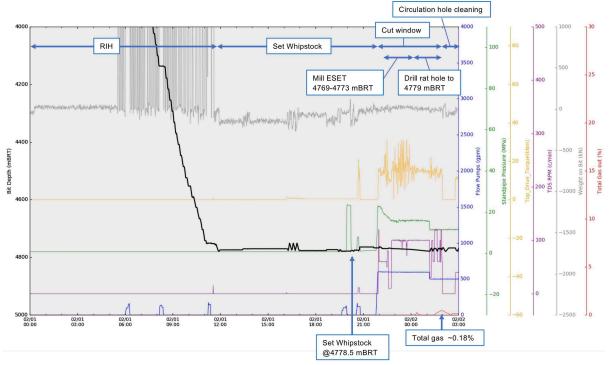


Figure 1 Drilling Experiences over last 27hrs

No particular indication of change in borehole condition was observed. Gases ~0.18% were detected at surface 3 hours later after commencing window cut.

#### **Cuttings and Cavings Analysis**

Barolift fibers were predominant, associated with thin metal shavings and a tiny amount of fine cuttings while circulation.

#### **LWD Data Analysis**

N/A

#### **SFIB Analysis**

No further updates.

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#### **Geomechanical Model Review**

No change in the current stress model.

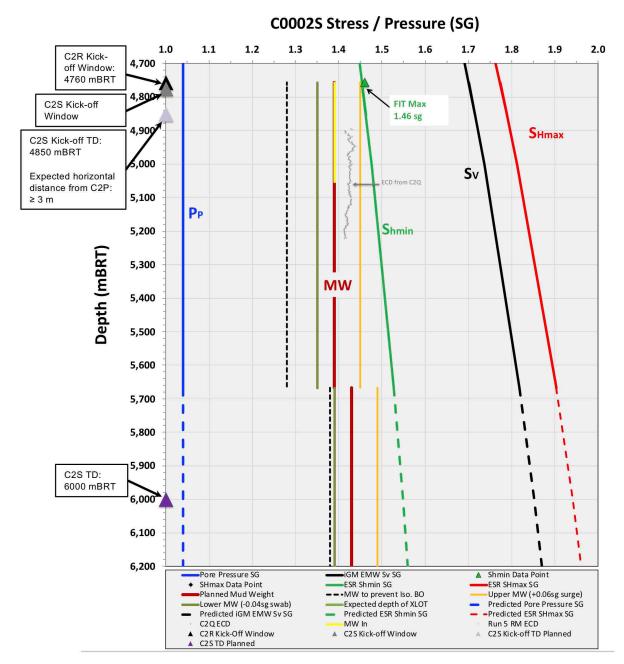


Figure 2 Current stress model for C2S