#### NNE\_Boggess\_13H–Job Summary Sections 01 & 02

18<sup>th</sup> June 2019

Prepared by: **Dmitry Avdeev** 

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- Section 01 (vertical)
  - Pass01 (drill)
- Section 02 (vertical, curve, lateral)
  - Pass01 (vertical+curve, drill)
  - Pass02 (lateral, drill)

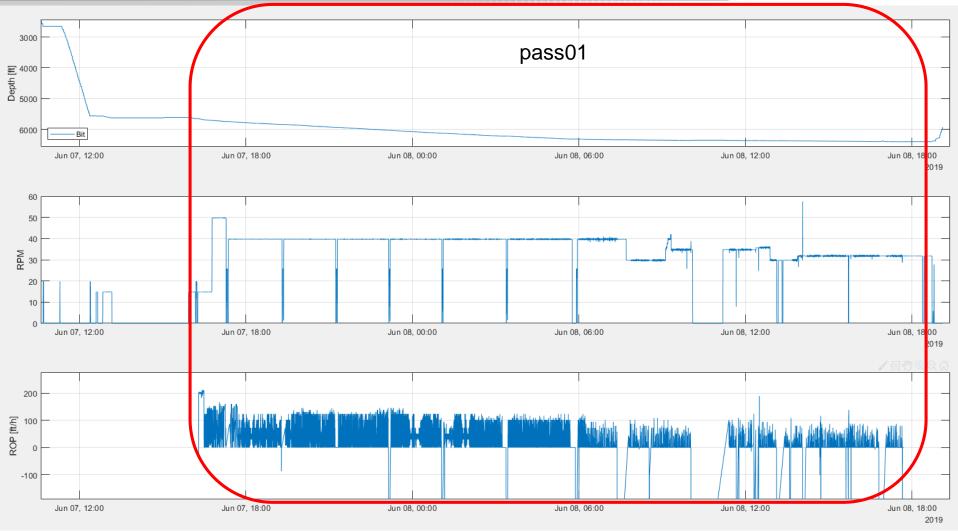


#### NNE\_Boggess\_13H– Job Summary. Section01.

- Section 01 (vertical)
  - Pass01 (drill)



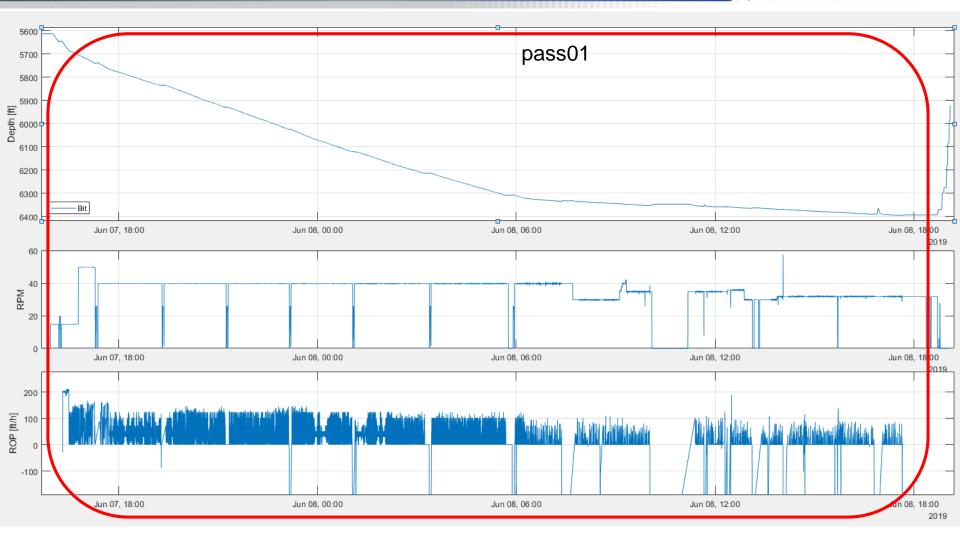
## NNE\_Boggess\_13H– Job Summary. Section01. Pass01.





<sup>4</sup> Customer provided data, not acquired by PetroMar

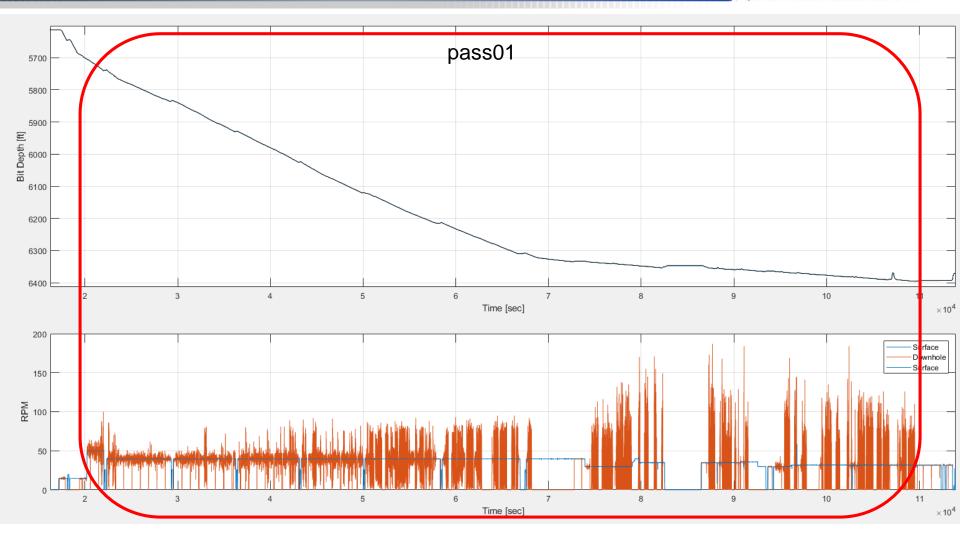
#### NNE\_Boggess\_13H– Job Summary. Section01. Pass01.





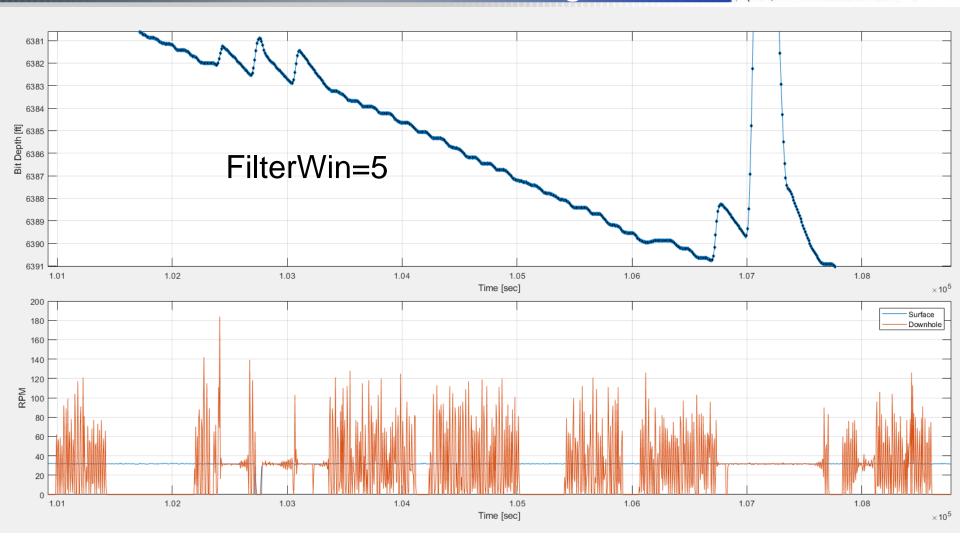
<sup>5</sup> Customer provided data, not acquired by PetroMar

#### NNE\_Boggess\_13H– Job Summary. Section01. Pass01.





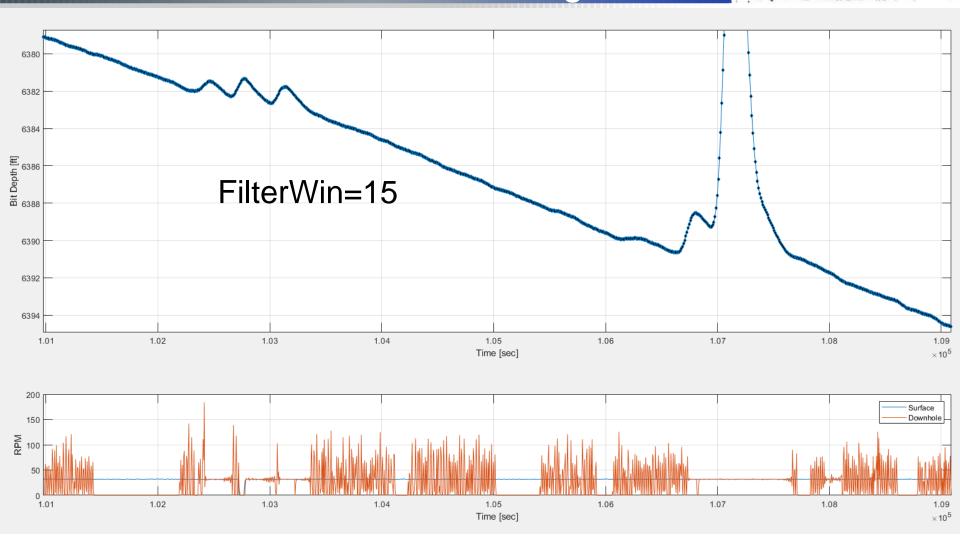
#### NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Stair Casing.





<sup>7</sup> Customer provided data, not acquired by PetroMar, included

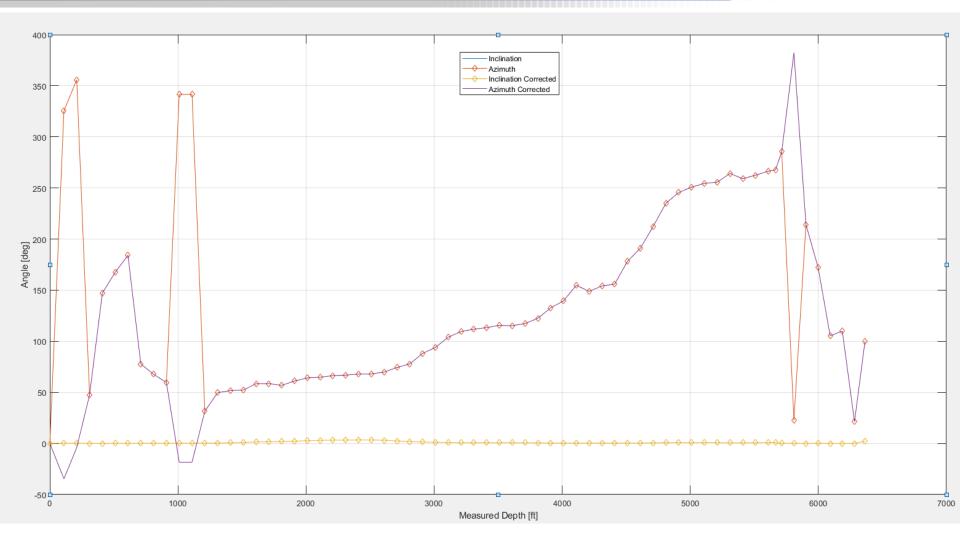
#### NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Stair Casing.





<sup>8</sup> Customer provided data, not acquired by PetroMar, included

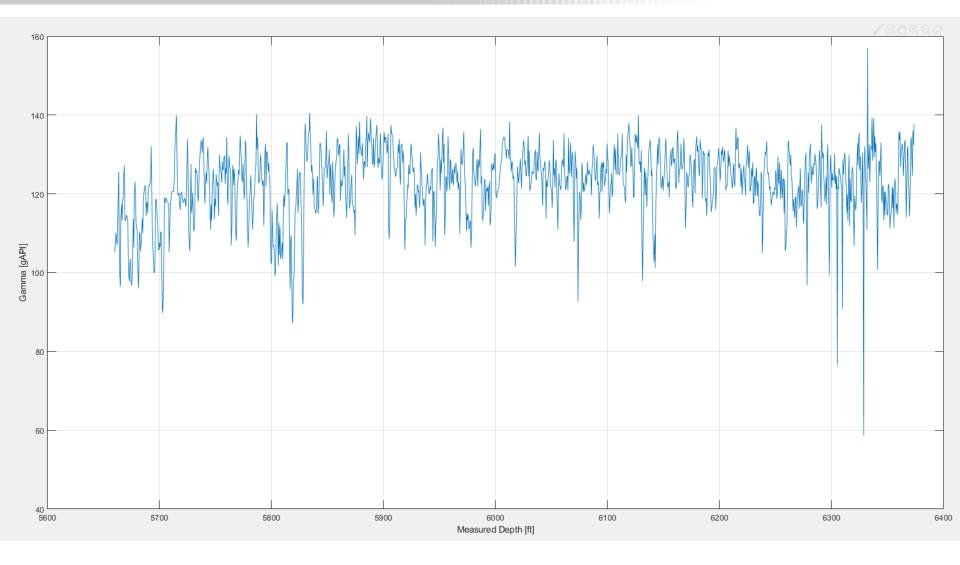
#### NNE\_Boggess\_13H– Job Summary. Section01. Inclination & Azimuth.





<sup>9</sup> Customer provided data, not acquired by PetroMar

#### NNE\_Boggess\_13H– Job Summary. Section01. Gamma API (GRC\_D).



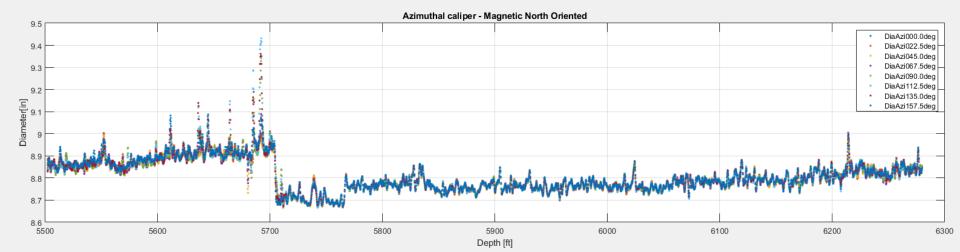


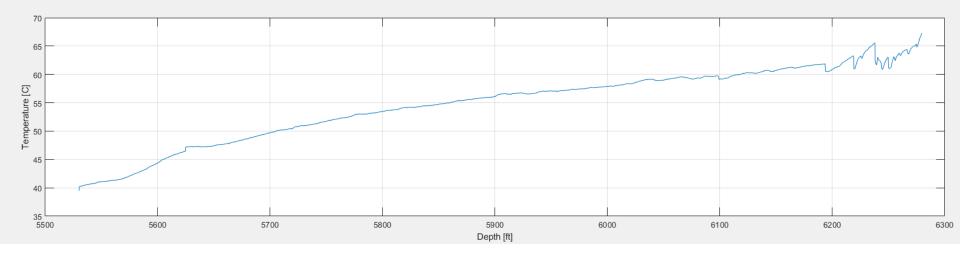
<sup>10</sup> Customer provided, not acquired by PetroMar

- FV Sensor at 5,502 to 6,280 ft
- FV Sensor to Bit Distance ~ 115.8 ft
- Severe Stick-Slip (?)



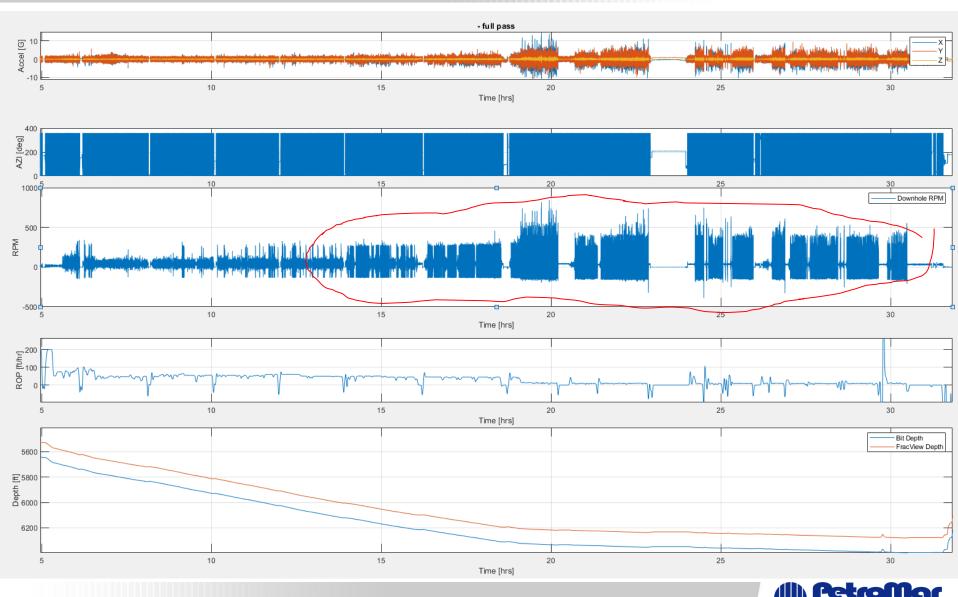
## NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Azimuthal Calipers.





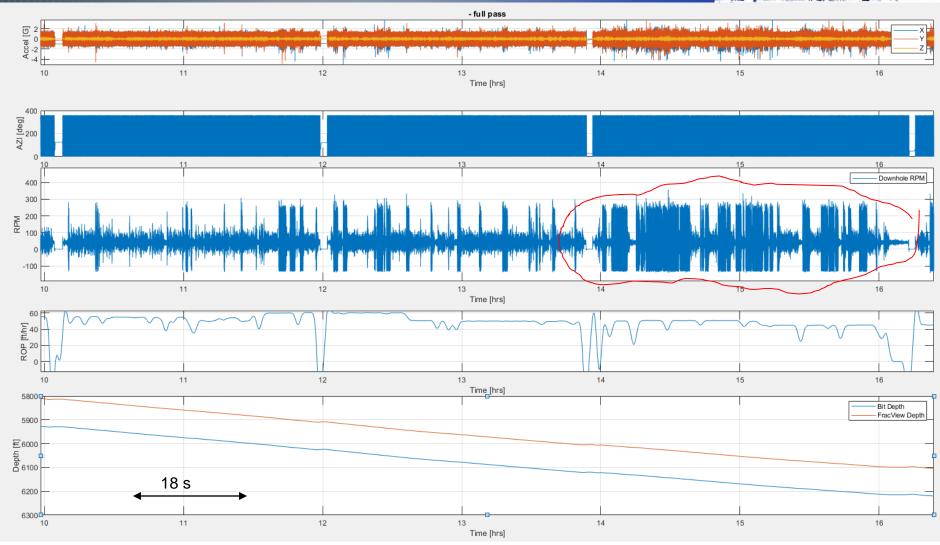


## NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Motion Dynamics.



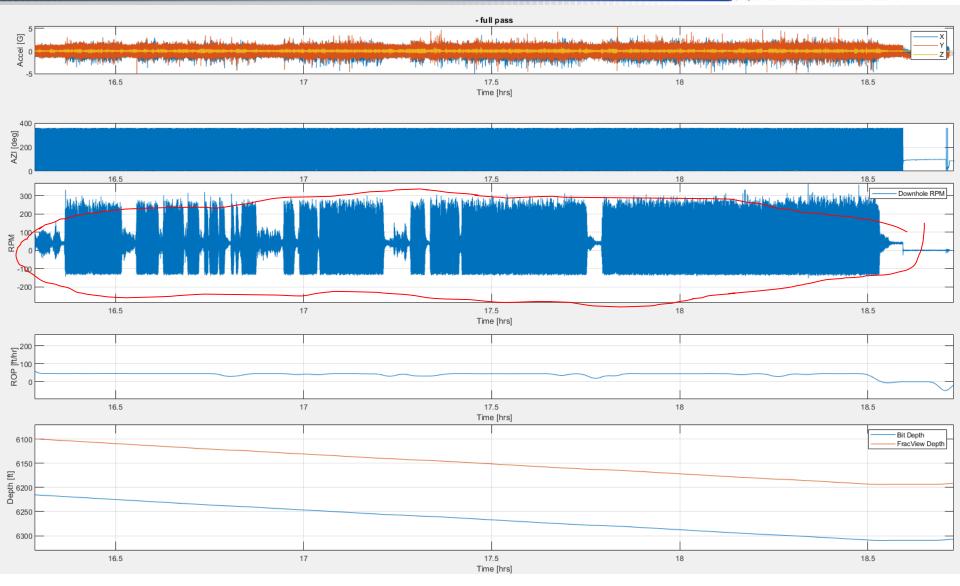
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## NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Motion Dynamics (Stick Slip zoom



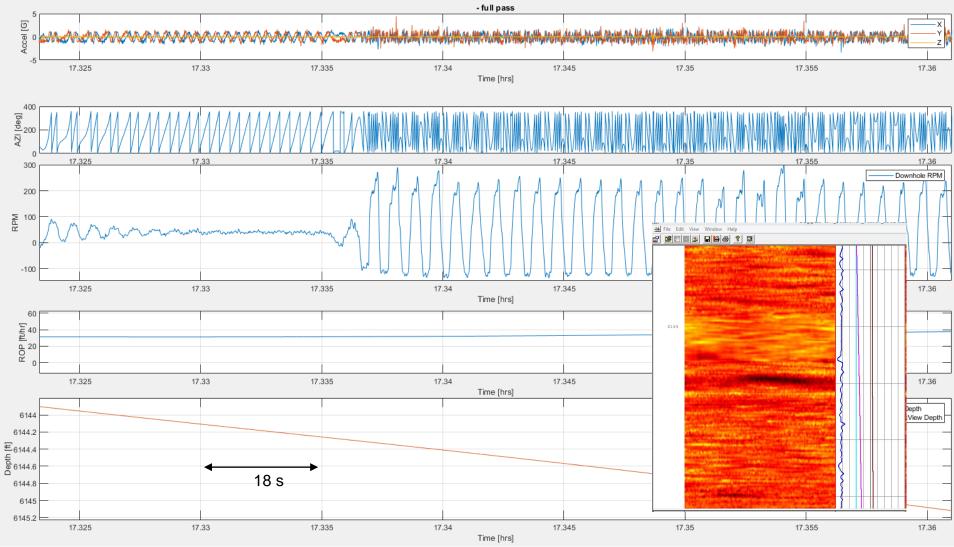


# NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Motion Dynamics (Stick Slip zoom



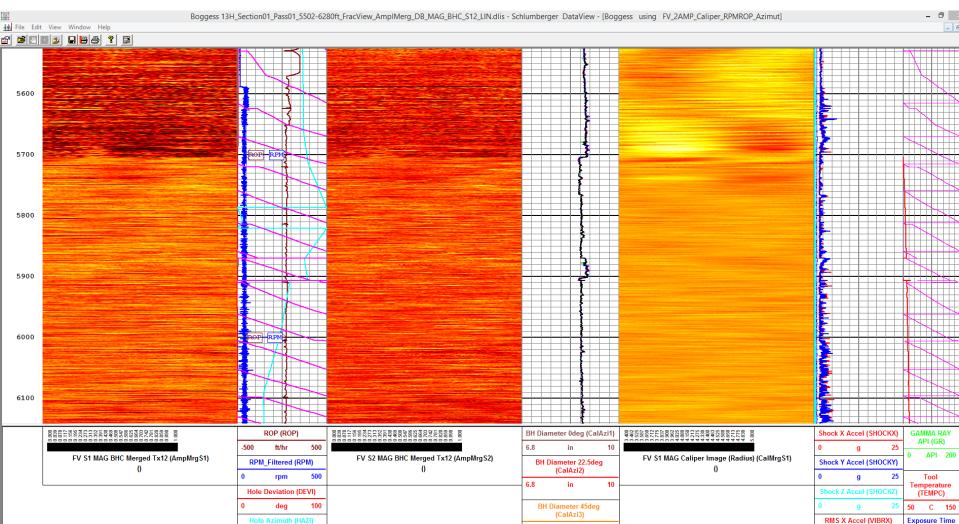


# NNE\_Boggess\_13H– Job Summary. Section01. Pass01. Motion Dynamics (Stick Slip zoom



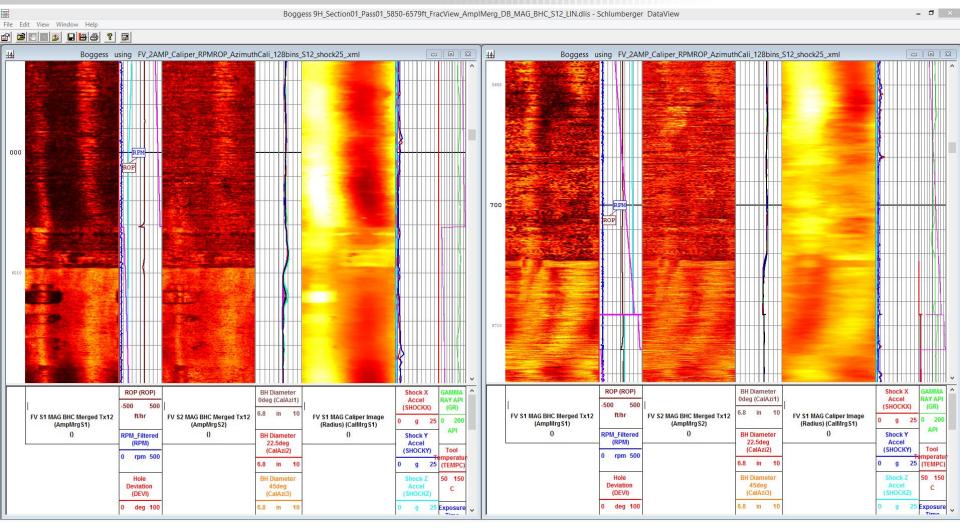








## NNE\_Boggess\_13H– Job Summary. Section01. Pass01. 13H vs 9H



9H

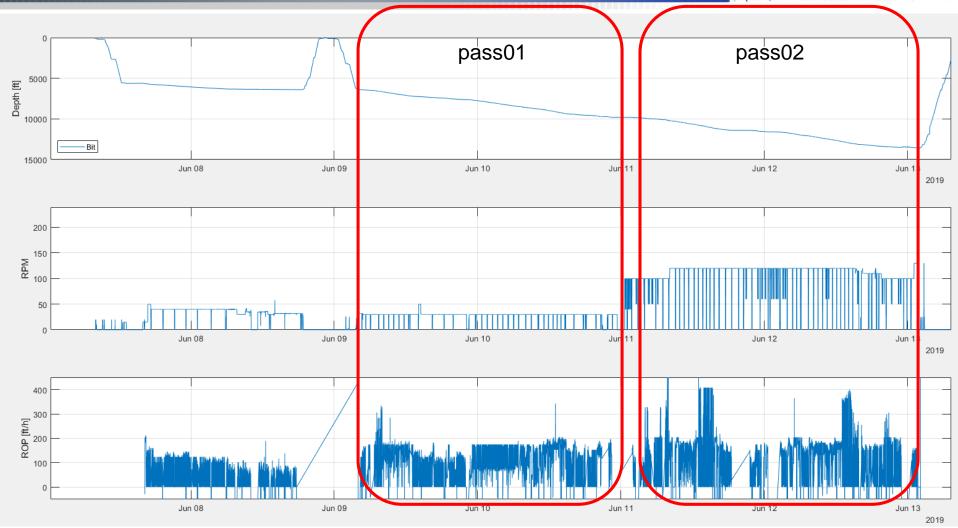




- Section 02 (vertical, curve, lateral)
  - Pass01 (vertical+curve, drill)
  - Pass02 (lateral, drill)



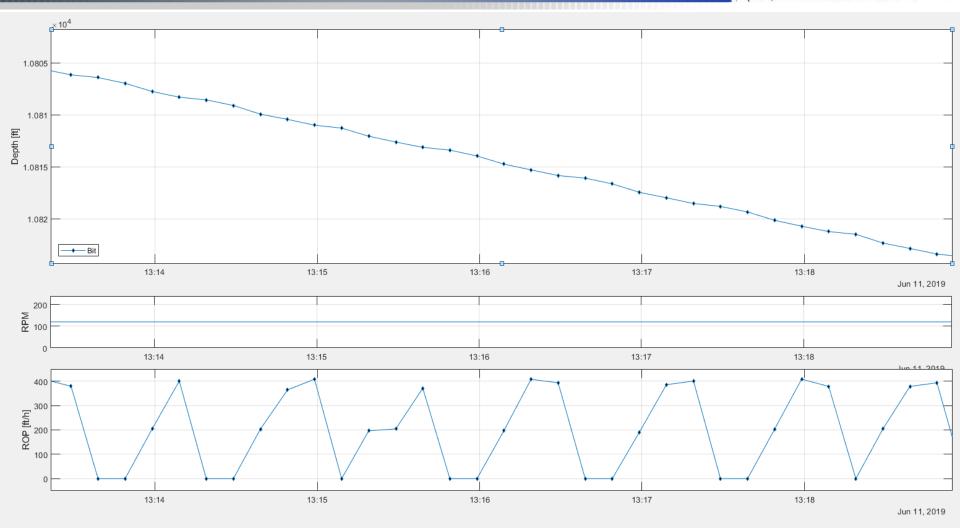
#### NNE\_Boggess\_13H– Job Summary. Section02. Pass01 & 02





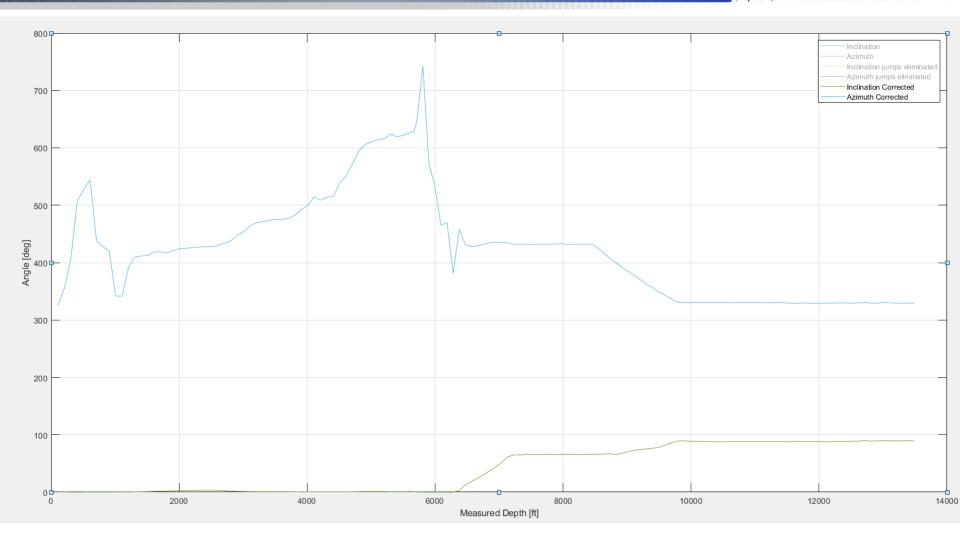
<sup>20</sup> Customer provided data, not acquired by PetroMar

#### NNE\_Boggess\_13H– Job Summary. Section02.





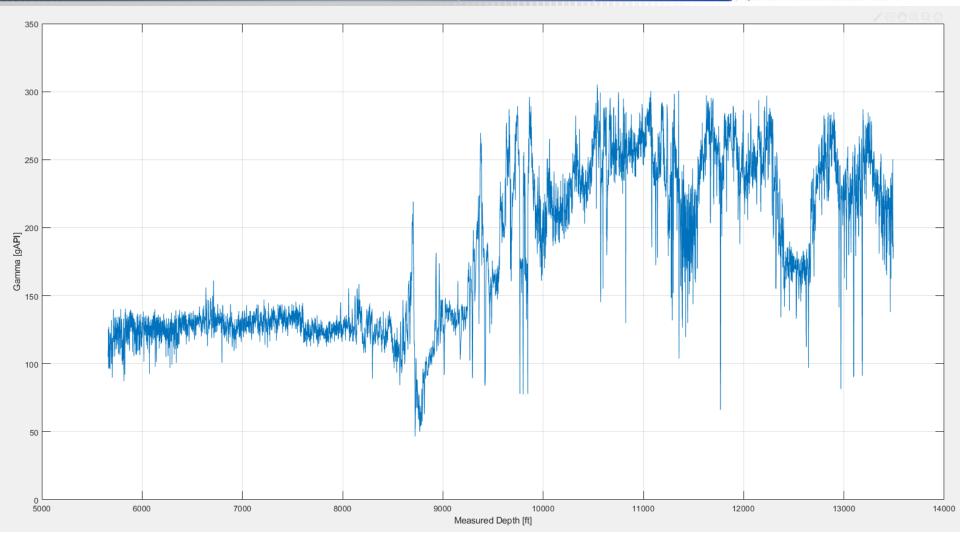
#### NNE\_Boggess\_13H– Job Summary. Section02. Inclination & Azimuth.





#### <sup>22</sup> Customer provided data, not acquired by PetroMar

#### NNE\_Boggess\_13H– Job Summary. Section02. Gamma API (GRC\_D).





#### <sup>23</sup> Customer provided, not acquired by PetroMar

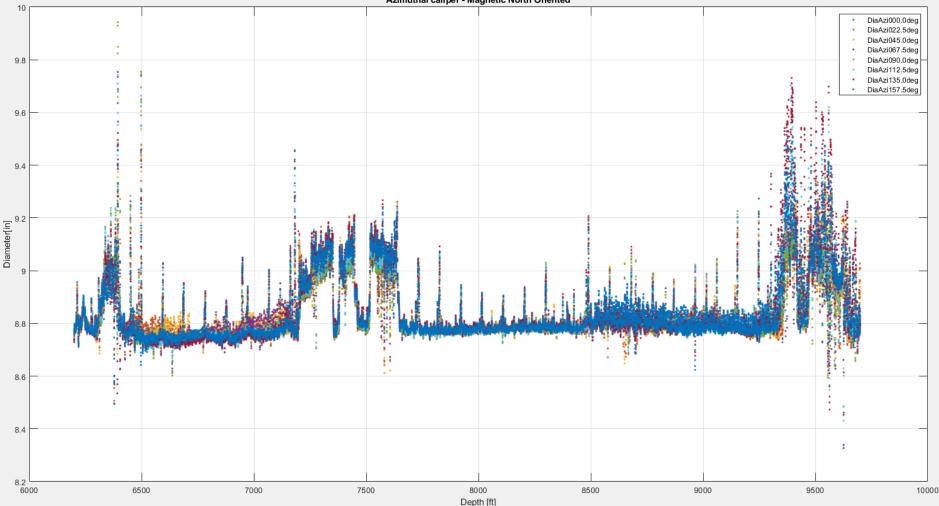
## NNE\_Boggess\_13H– Job Summary. Section 02. Pass01 (vertical+curve, drill)

- FV Sensor at 6,200 to 9,700 ft
- FV Sensor to Bit Distance ~ 115.85 ft
- Stick-Slip



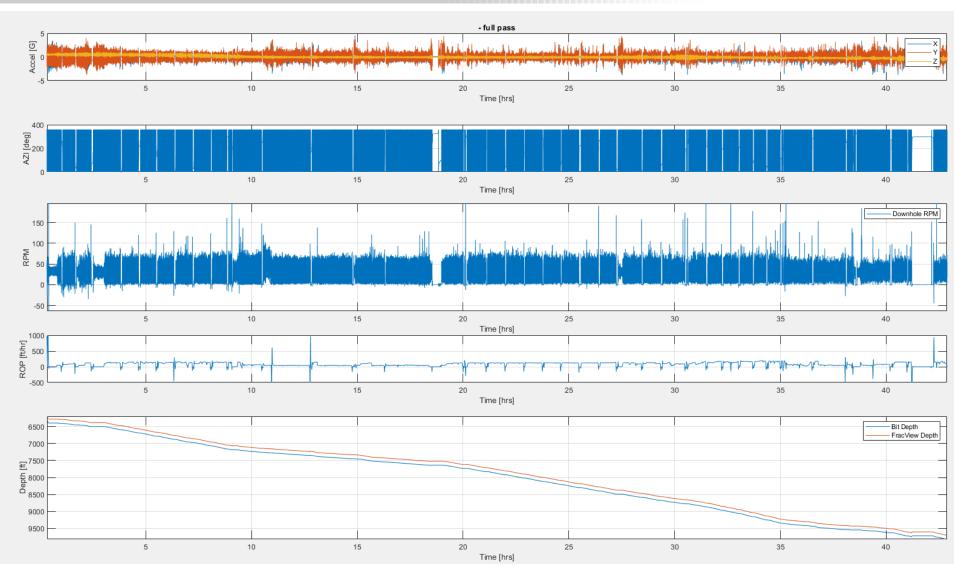
## NNE\_Boggess\_13H– Job Summary. Section02. Pass01. Azimuthal Calipers.

Azimuthal caliper - Magnetic North Oriented



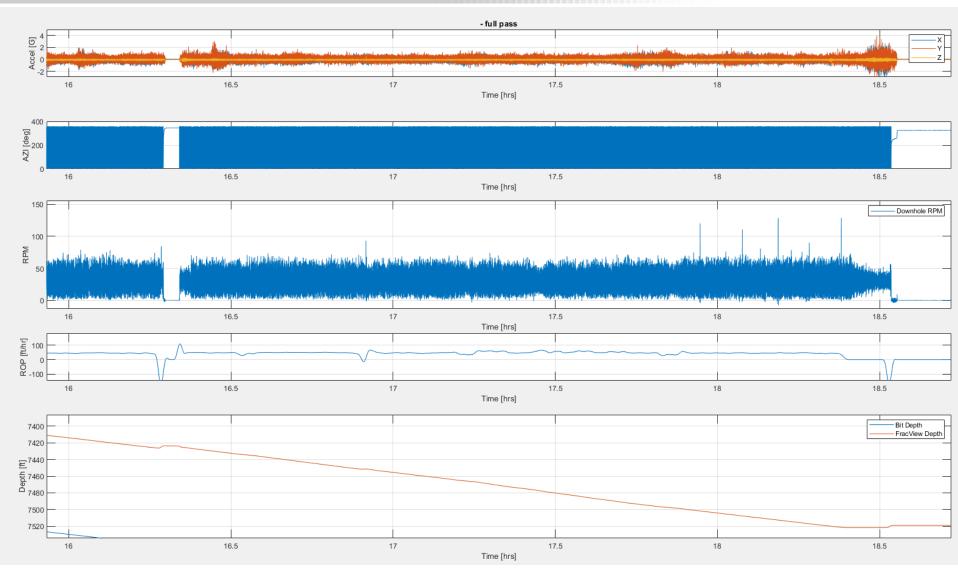


## NNE\_Boggess\_13H– Job Summary. Section02. Pass01. Motion Dynamics.



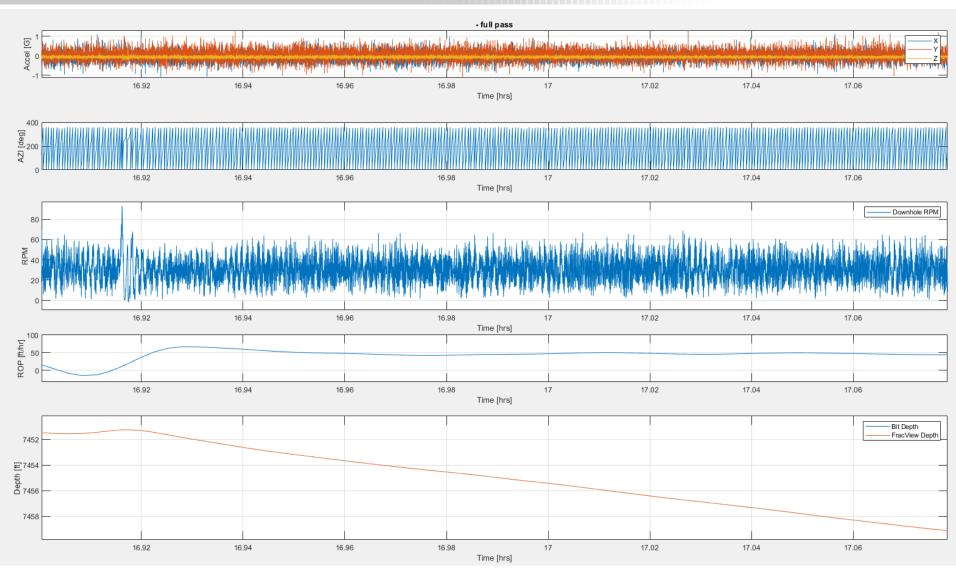


## NNE\_Boggess\_13H– Job Summary. Section02. Pass01. Motion Dynamics (zoom in).

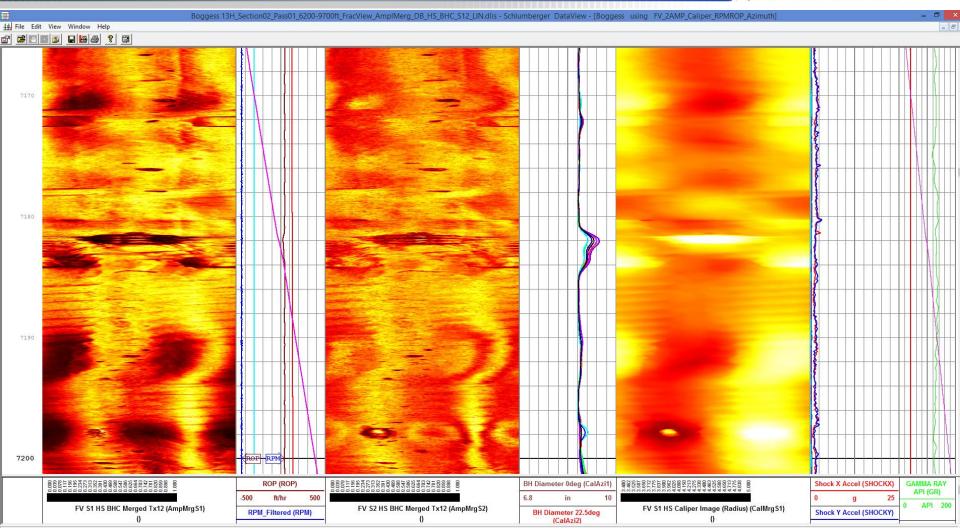




## NNE\_Boggess\_13H– Job Summary. Section02. Pass01. Motion Dynamics (zoom in)



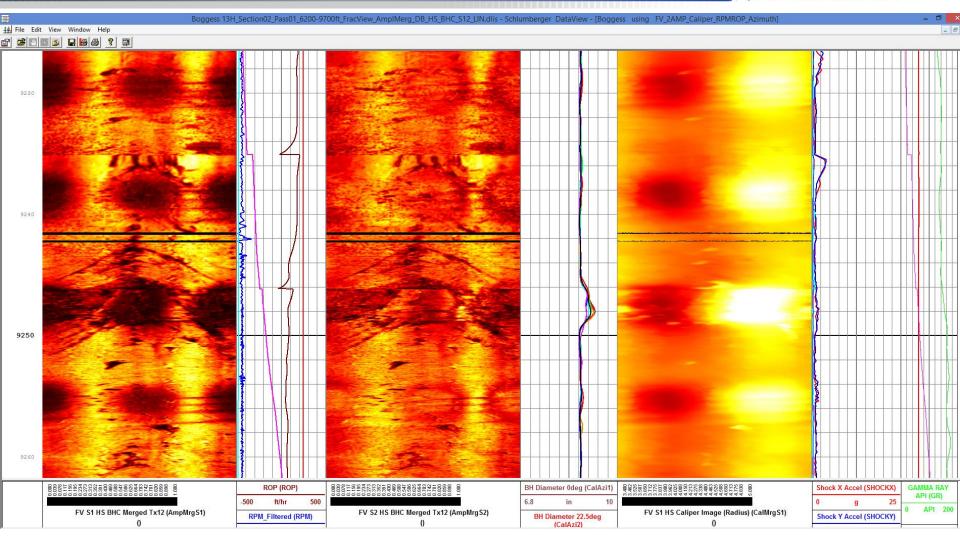






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	FV S1 HS BHC Merged Tx12 (AmpMrgS1)	-500 ft/hr 500 RPM_Filtered (RPM)	FV S2 HS BHC Merged Tx12 (AmpMrgS2)	6.8 in 10 BH Diameter 22.5deg	FV S1 HS Caliper Image (Radius) (CalMrgS1)	0 g 2 Shock Y Accel (SHOCKY	0 API 200
Classica Edu Date	0		0	(CalAzi2)	0		



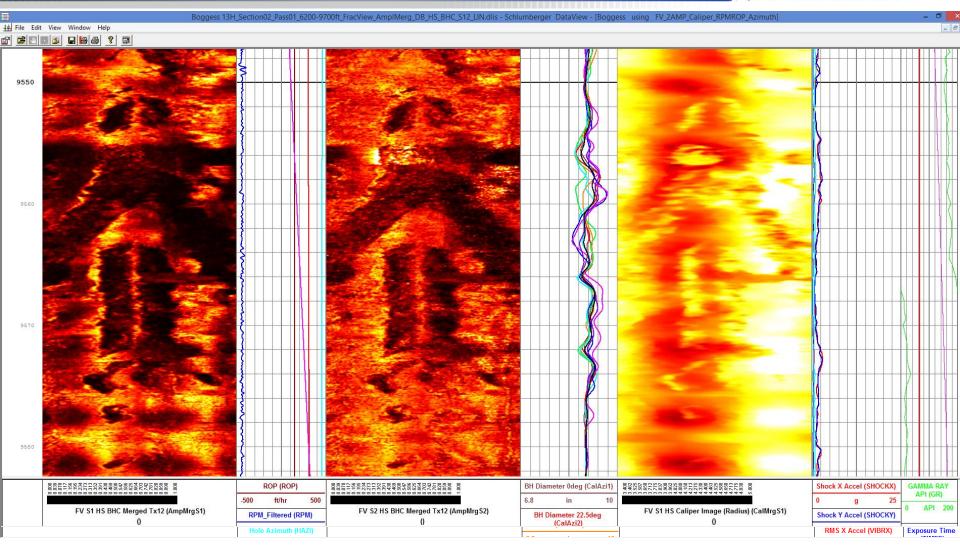




9280 9290 9300 400 (2010) (2010 ROP (ROP BH Diameter 0deg (CalAzi1) Shock X Accel (SHOCKX) SAMMA RAY API (GR) 500 6.8 10 500 ft/h in 25 g API 200 FV S1 HS BHC Merged Tx12 (AmpMrgS1) FV S2 HS BHC Merged Tx12 (AmpMrgS2) FV S1 HS Caliper Image (Radius) (CalMrgS1) **RPM\_Filtered (RPM)** BH Diameter 22.5deg Shock Y Accel (SHOCKY) 1 () (CalAzi2) ()



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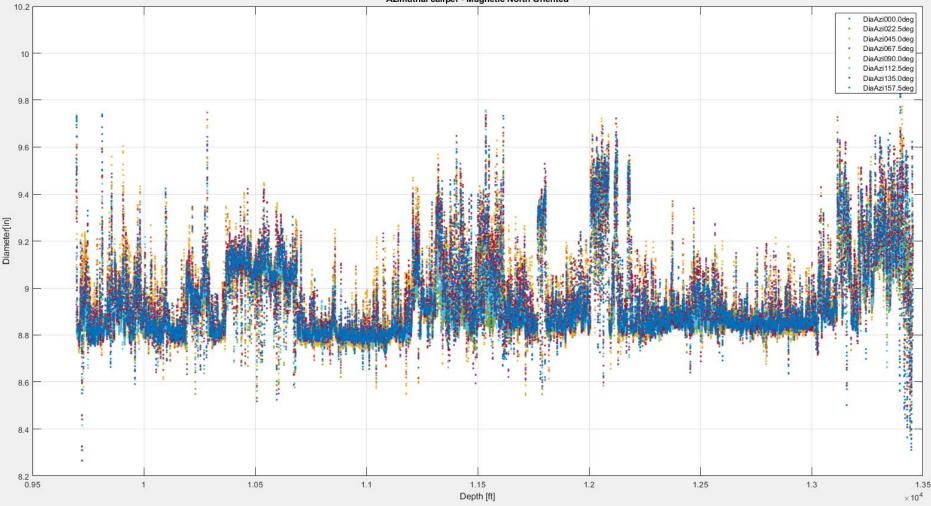


- FV Sensor at 9,697 to 13,456 ft
- FV Sensor to Bit Distance ~ 115.85 ft
- Some Stick-Slip



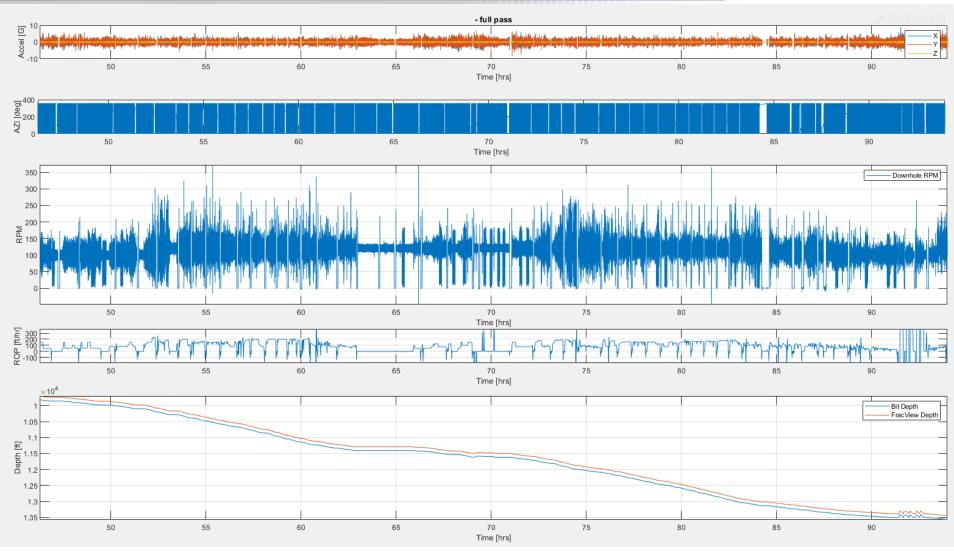
## NNE\_Boggess\_13H– Job Summary. Section02. Pass02. Azimuthal Calipers.







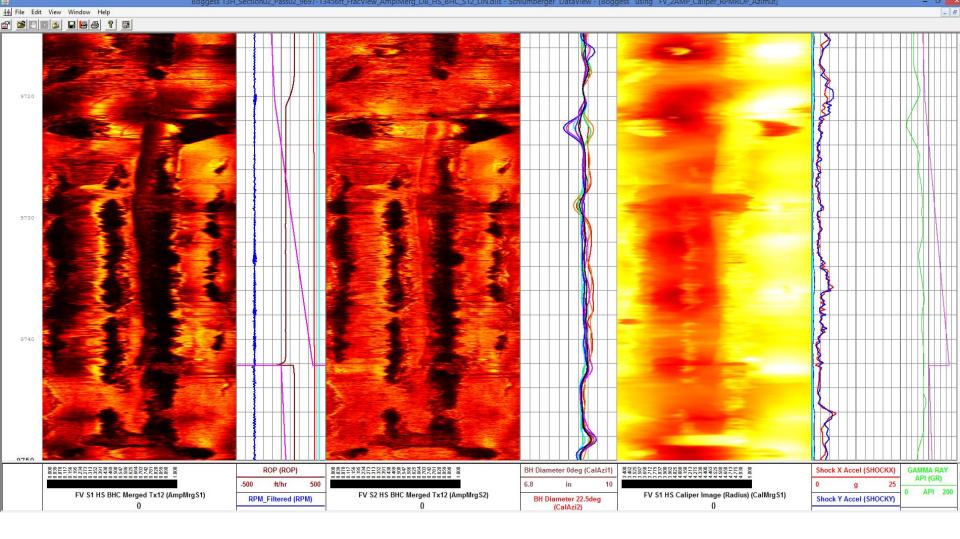
## NNE\_Boggess\_13H– Job Summary. Section02. Pass02. Motion Dynamics.



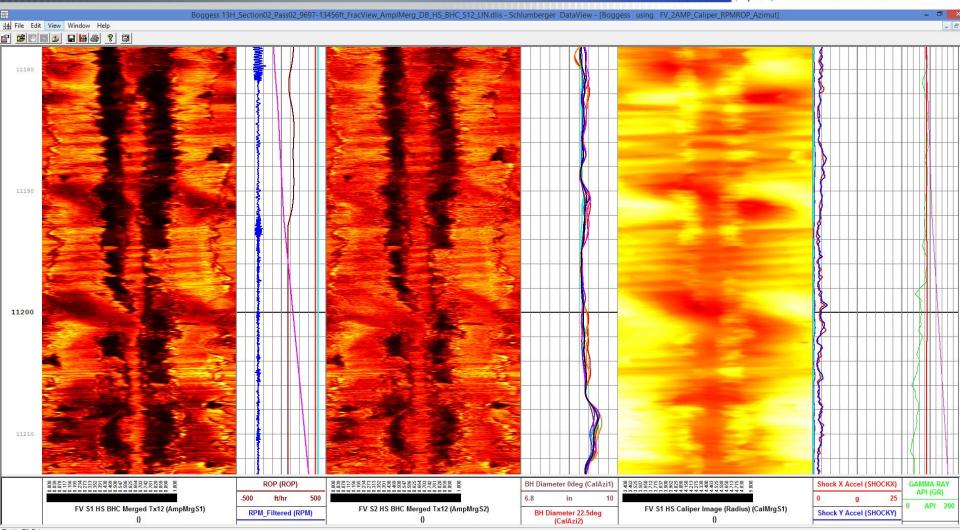


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	FV S1 HS BHC Merged Tx12 (AmpMrgS1) ()	RPM_Filtered (RPM)	FV S2 HS BHC Merged Tx12 (AmpMrgS2) ()	BH Diameter 22.5deg (CalAzi2)	FV S1 HS Caliper Image (Radius) (CalMrgS1) ()	Shock Y Accel (SHOCKY)	0 API 200

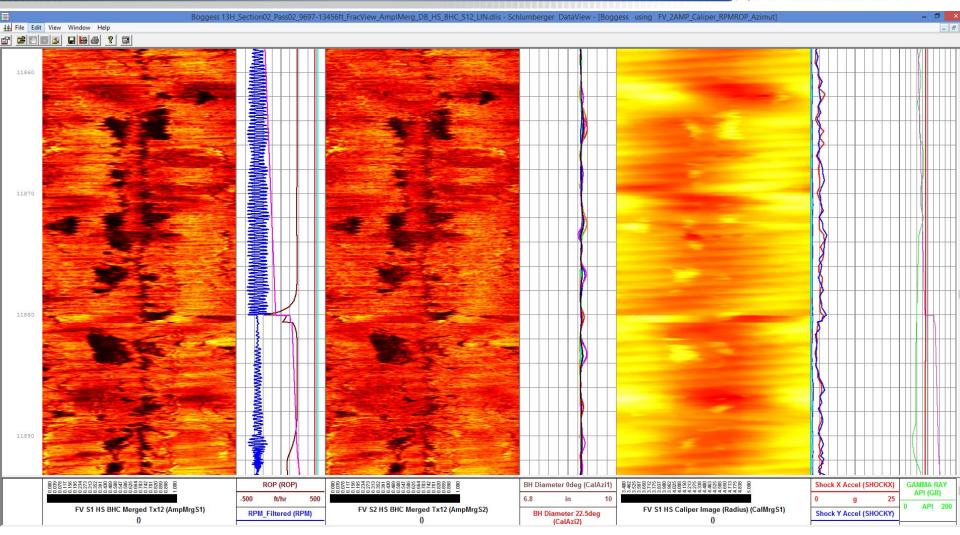




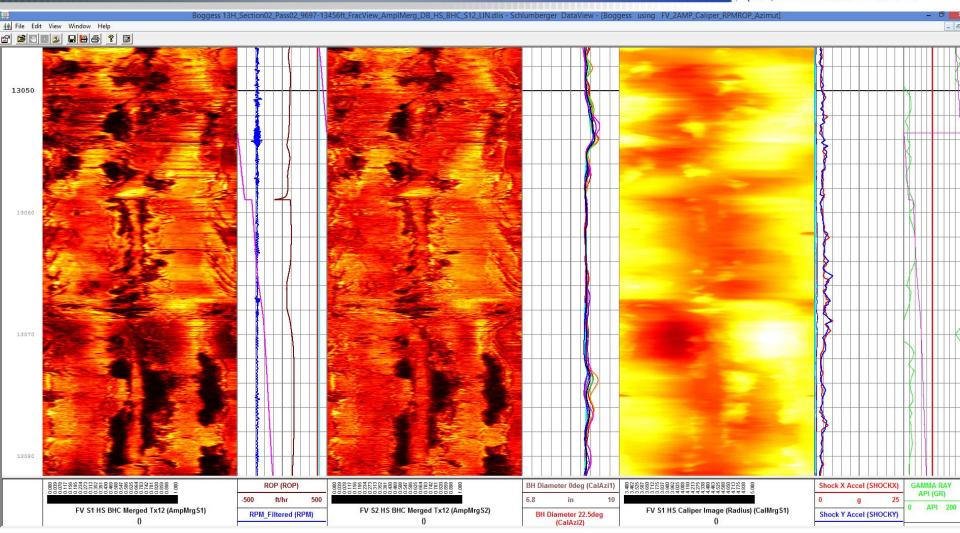




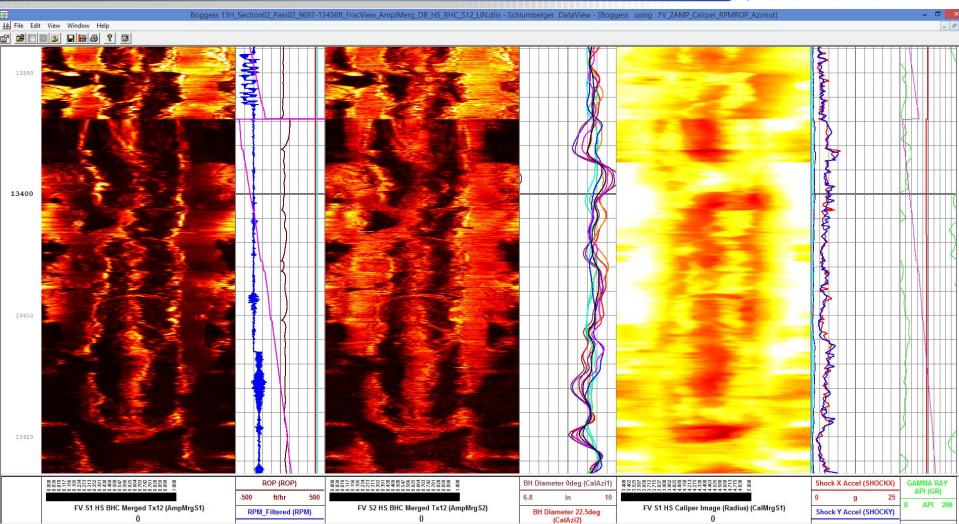














## NNE\_Boggess\_13H– Job Summary.

#### **Thank You**

