Ryan Chouest daily data transmission and report

Period covered: 1318 hrs 06/28/2010- 1756 hrs 06/28/2010

35.238 - Nautical miles covered

Vessel science party:

Andrew Ross (Andrew.Ross@csiro.au)
Emma Crooke (Emma.Crooke@csiro.au)
David Fuentes (David.Fuentes@csiro.au)
Xiubin Qi (Xiubin.Qi@csiro.au)
Stephane Armand (Stephane.Armand@csiro.au)
Lawrence Febo (Lawrence.Febo@bp.com)
Guilherme de Almeida (gdealmeida@entrix.com)

Contact details:

+ 1 337 761 9830 – Sat phone
+ 1 337-761-9830 – Broadband phone ship office
+ 1 337-761-9826 - Broadband phone ship bridge

Cruise notes:

We sailed on the cruise track originally planned until the underway pump failed at approximately 1700 hrs on 6/28. After this occurred, we removed the pump and without a spare, sailed directly back to port. In reality, the relatively strong sea states would have prevented us from continuing with the shallow water sampling for much longer. As a result, we only have a very short cruise track with data for this report (Figure 1).

Science results and preliminary interpretation:

Fluorometry results

The Chelsea, Trios, and Contros fluorometery data show low to medium inferred hydrocarbon concentrations based on the current scale setting over the short interval sampled (Figures 2-4). Chelsea data show the lowest values, whereas the Trio and Contros show relatively higher medium-level values. Chelsea data seem not show an obvious correlation with the potential oiling footprint for 6/28, whereas both Contros and Trios show higher readings as the ship head towards the spill site.

Surface Observations

A relatively active zone with diverse oil slicks was observed between 29 ^{o} 30'-30 ^{o}N and 86 30'-87° 15'W. Brown oil, orange pancakes, and streamers were mostly observed in this region, but these were observed at night and we were unable to photograph them.

Planned versus actual route taken for cruise 5:

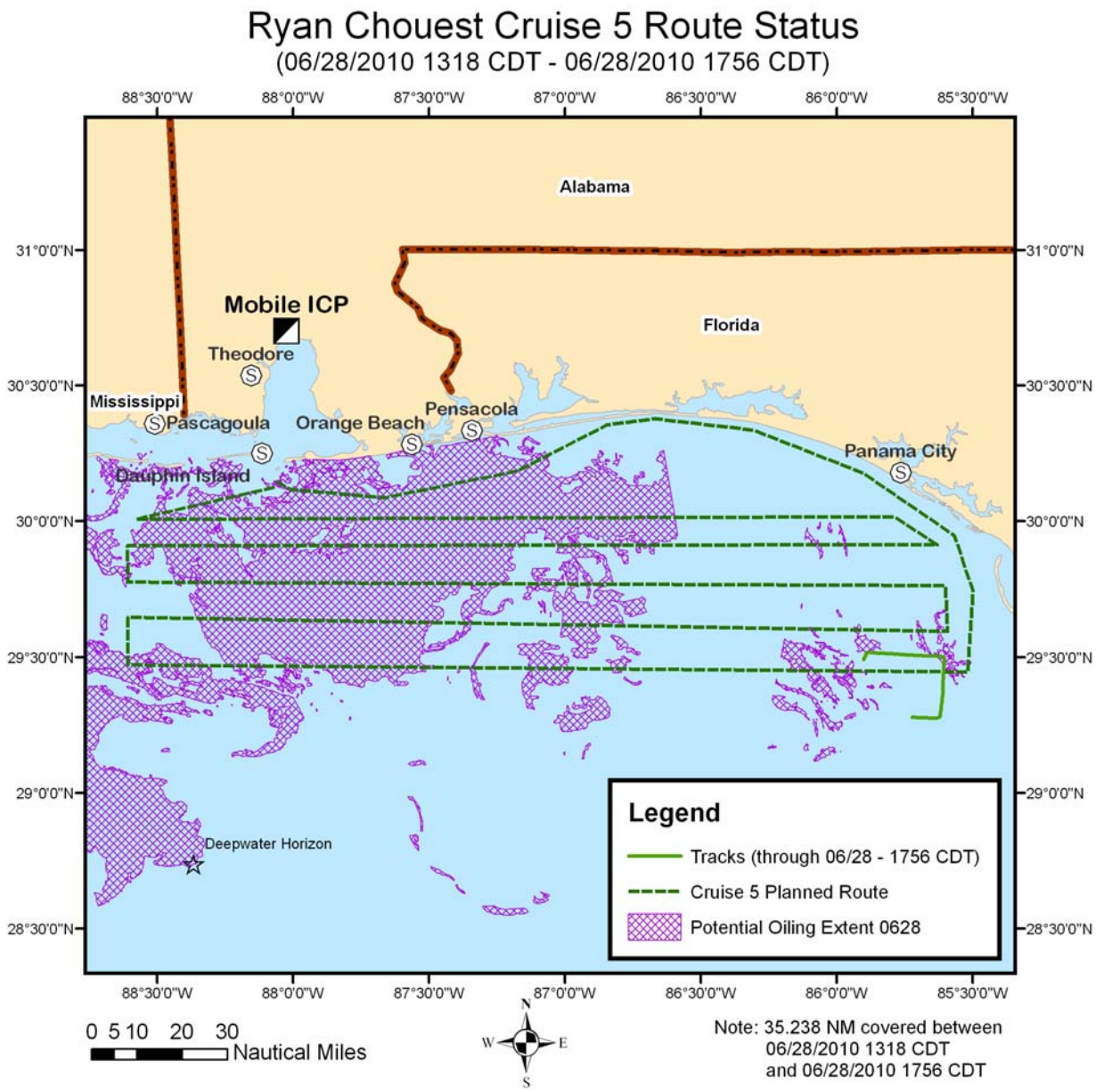

Figure 1: Planned versus actual route course plotted between 06/28/2010 –06/28/2010. Purple shaded area represents outline extent of the slick from 06/28 ERMA composite.

Vessel science operations:

Fluorometer measurements were logged throughout a small portion of the survey period as shown in Figure 1 due to failure of the both water pumps. Without a spare, we sailed straight to port for repairs and crew change. We continued to make sea-surface observations while underway. We continued to perform liquid-liquid extractions on seawater samples/mousses and analyze the extracted material by GCMS.

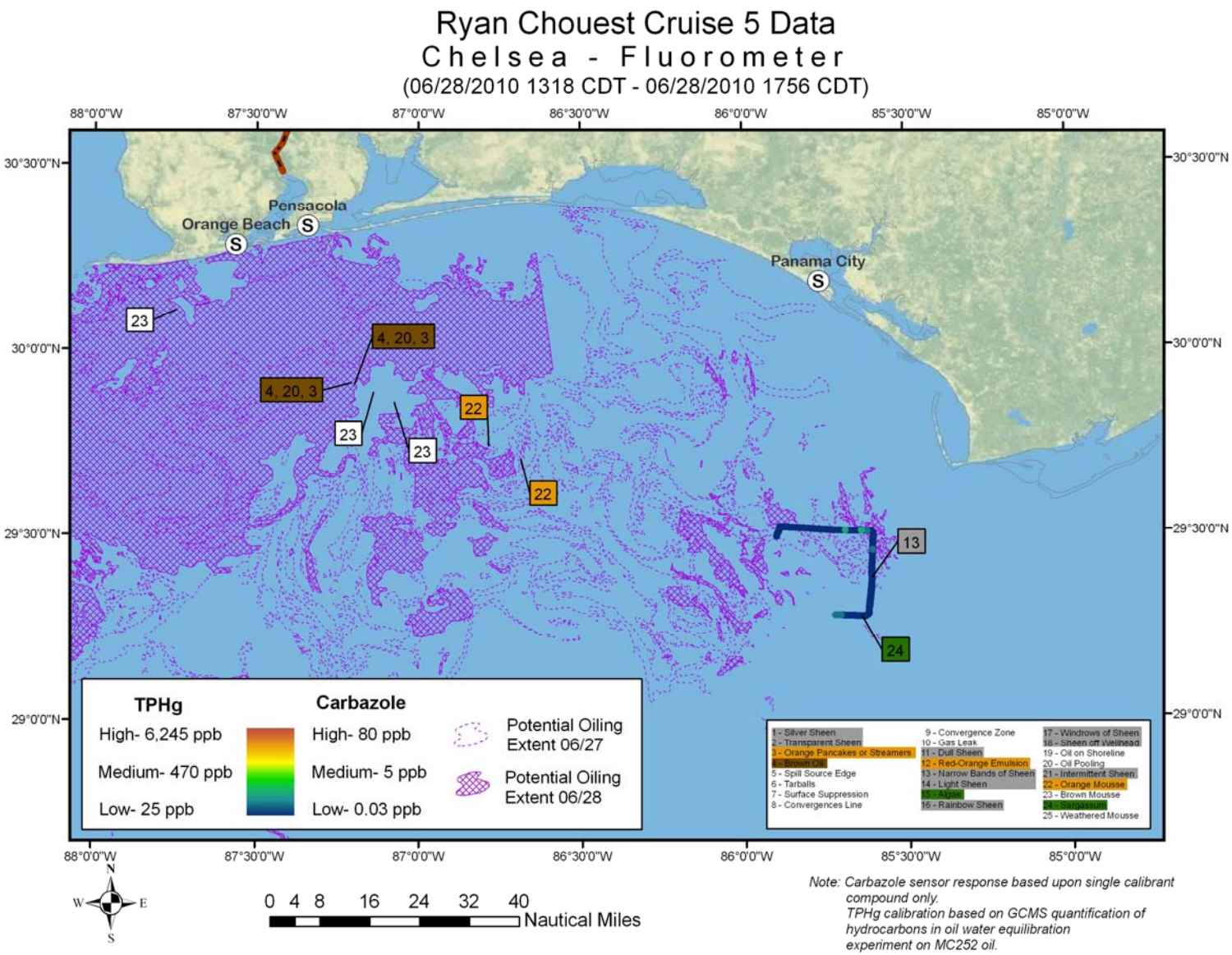

Figure 2. Chelsea fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

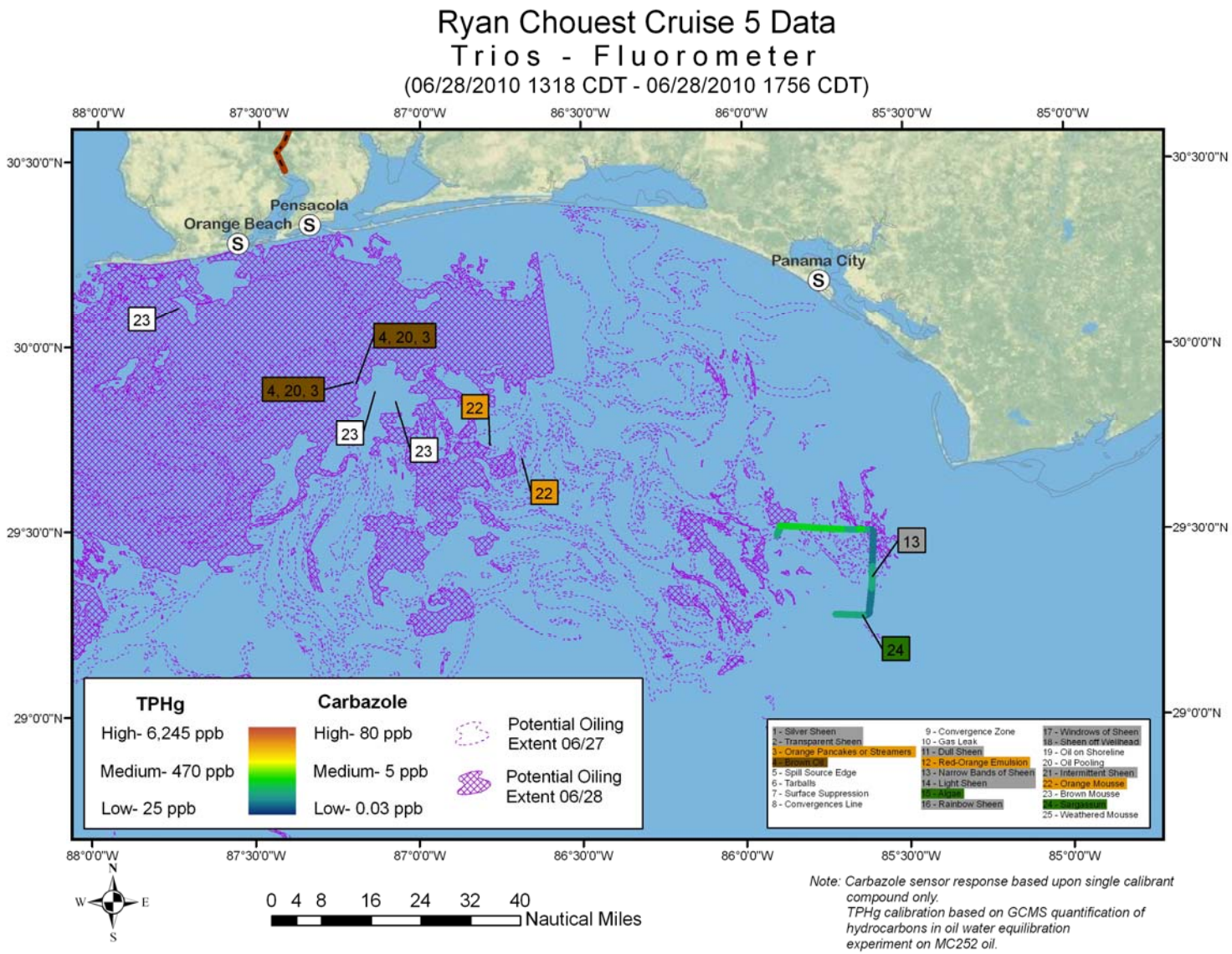

Figure 3. Trios fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

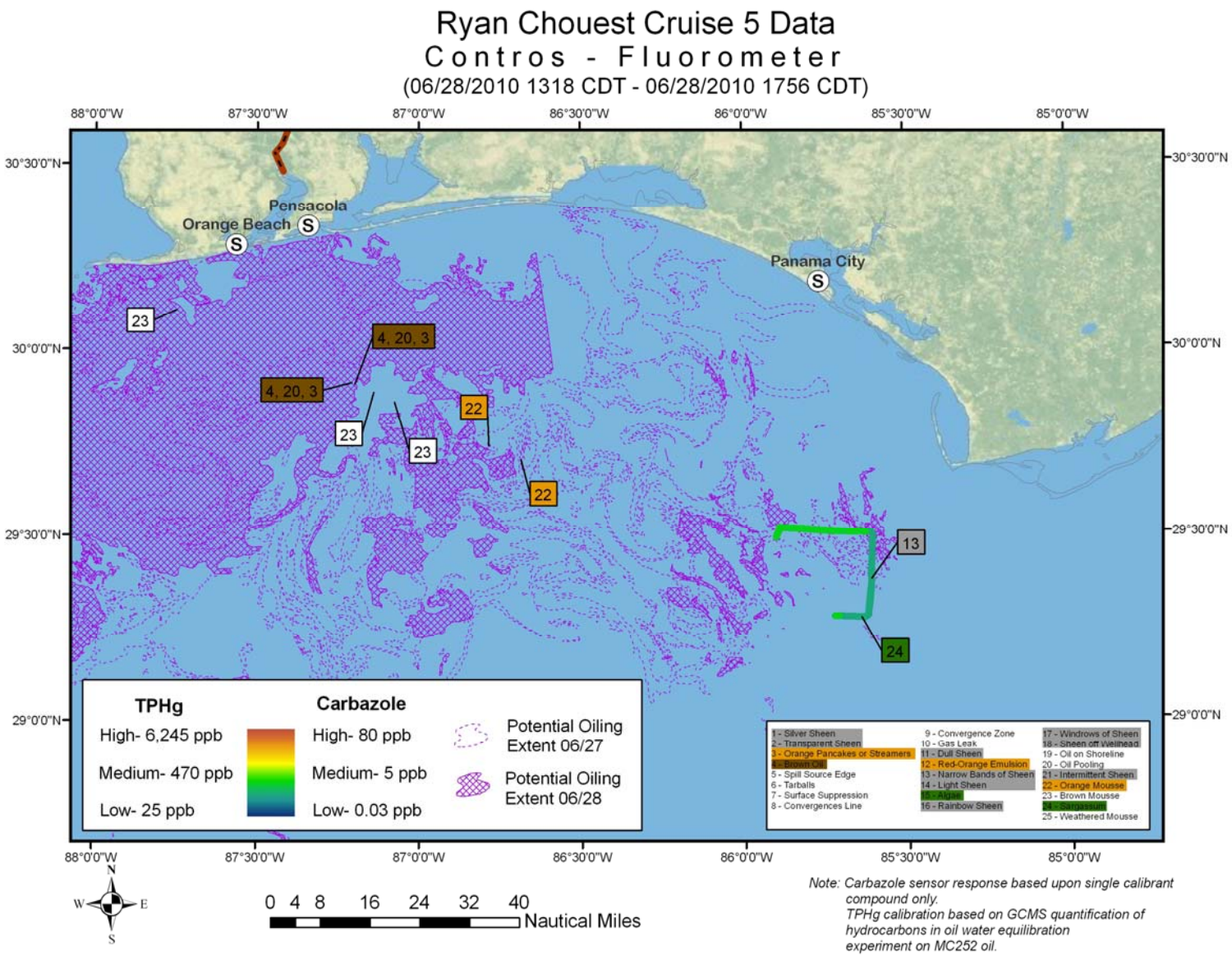

Figure 4. Contros fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Problems/operational issues:

(Includes items up to report submission time)

The two submersible pumps have been repaired and one passed the initial testing. Both pumps are still subject to deployment testing. A back up pump has been ordered and is supposed to get delivered tomorrow. The new office container was on loaded and the plans to fix the jib crane wheel blocks were given to the machinists. The relief crew has also arrived and will stay onboard tonight. The Stratos communications technician will arrive at 0600 hrs to set up a phone/ethernet ports in the new container and increase the bandwidth of the internet communications.

Planned activities for next 24 hours:

We will remain in port for approximately 24 hours while new equipment is connected, personnel are changed, groceries are delivered, and equipment repairs are tested. Weather delays are uncertain at this time but may be expected if Tropical Storm Alex continues to churn in the southwestern GoM.

Full Crew List:

William A. Smith	MASTER
Demarco Jones	A/B
Elijah Benjamin	O/S RIG
Jon Cheney	Capt.
Brian Corley	Mate
Eduardo Zepeda	A/B
Mark Harmon	A/B
Samuel Nwosu	QMED
Craig Lyons	CHIEF ENG.
Emma Crooke	CSIRO
Xiubin Qi	CSIRO
Stephane Armand	CSIRO
David Fuentes	CSIRO
Andrew Ross	CSIRO
Lawrence Febo	BP
Guilherme De Almeida	Entrix
Brian Harmon	C&C
Greg Richard	C&C
Roderick Baker	OS/COOK
Brandon Wilson	C-PORT
Ben Autin	C-PORT