Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Thu 04 Jan

The vessel started the day alongside Pier #5 in Tauranga, NZ Moblilizing for MGL1801. The Day was spent focusing on the following Tasks

1. Completing Loading of 4.5km of Streamer - Completed
2. Rigging of Tailbuoy's - On Going
3. Preparation of DigiCourse Birds and DigiRange Acoustics - Completed
4. Configuration of Lab Systems - On Going
5. Completing Rigging for Air Sources
6. Working on Storage and Securing of all equipment

All science Party has arrived on-board the vessel except for three. All Tech's have arrived on-board except Mark Riddle (NCS -Nav Processor). Mark is in Auckland and will be on his way via road transport to the vessel this evening.

Daily Comment Summaries - Plan for Tomorrow

Thu 04 Jan

The Vessel will start the day alongside Pier #5 Tauranga, NZ - Continuing mobilizing for MGL1801. At ~21:00 UTC (5th of Jan) the vessel will get underway and head out into the Bay of Plenty to begin streamer work, while waiting on weather to subside in the prospect area.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Mob Ashore	MB_MA	Thu 4. Jan 00:00	Thu 4. Jan 24:00	24.000
Mobilising Ashore for MGL1801				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

4-Jan	Hours	%Percent
Mobilisation	**24.000**	**100.000**
Mob Ashore	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	%Percent
Mobilisation	**24.000**	**100.000**
Mob Ashore	24.000	100.000
Total	24.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 04 Jan

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 04 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Fri 05 Jan

The vessel started the day alongside Pier #5 in Tauranga, NZ Moblilizing for MGL1801. The Day was spent focusing on getting all spaces and equipment secured for getting underway. The Vessel was originally scheduled to get underway at 21:00 UTC, but due to weather delays of flights an peoples luggage arriving midday the departure was delayed until 24:00 UTC

Daily Comment Summaries - Plan for Tomorrow

Fri 05 Jan

The Vessel will start the day alongside Pier #5 Tauranga, NZ - Continuing mobilizing for MGL1801. At 00:28 UTC the vessel will get underway and head for the streamer deployment area. It is expected that the vessel will be on site at about 03:00 UTC and after some further preparation should start deploying gear about 07:00 UTC

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Mob Ashore	MB_MA	Fri 5. Jan 00:00	Fri 5. Jan 20:50	20.833
Mobilising Ashore.				
Weather	SB_WX	Fri 5. Jan 20:50	Fri 5. Jan 24:00	3.167
Chargeable standby due to weather.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

5-Jan	Hours	% Percent
Chargeable Standby	**3.167**	**13.194**
Weather	3.167	13.194
Mobilisation	**20.833**	**86.806**
Mob Ashore	20.833	86.806
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**44.833**	**93.403**
Mob Ashore	44.833	93.403
Chargeable Standby	**3.167**	**6.597**
Weather	3.167	6.597
Total	48.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 05 Jan

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 05 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

0%

Prime Lines Completed

0%

Preplot Lines	Complete	Incomplete	Pending
47	0	0	0

Percentages Charged	
Prime	0.00% of 4067.85 km

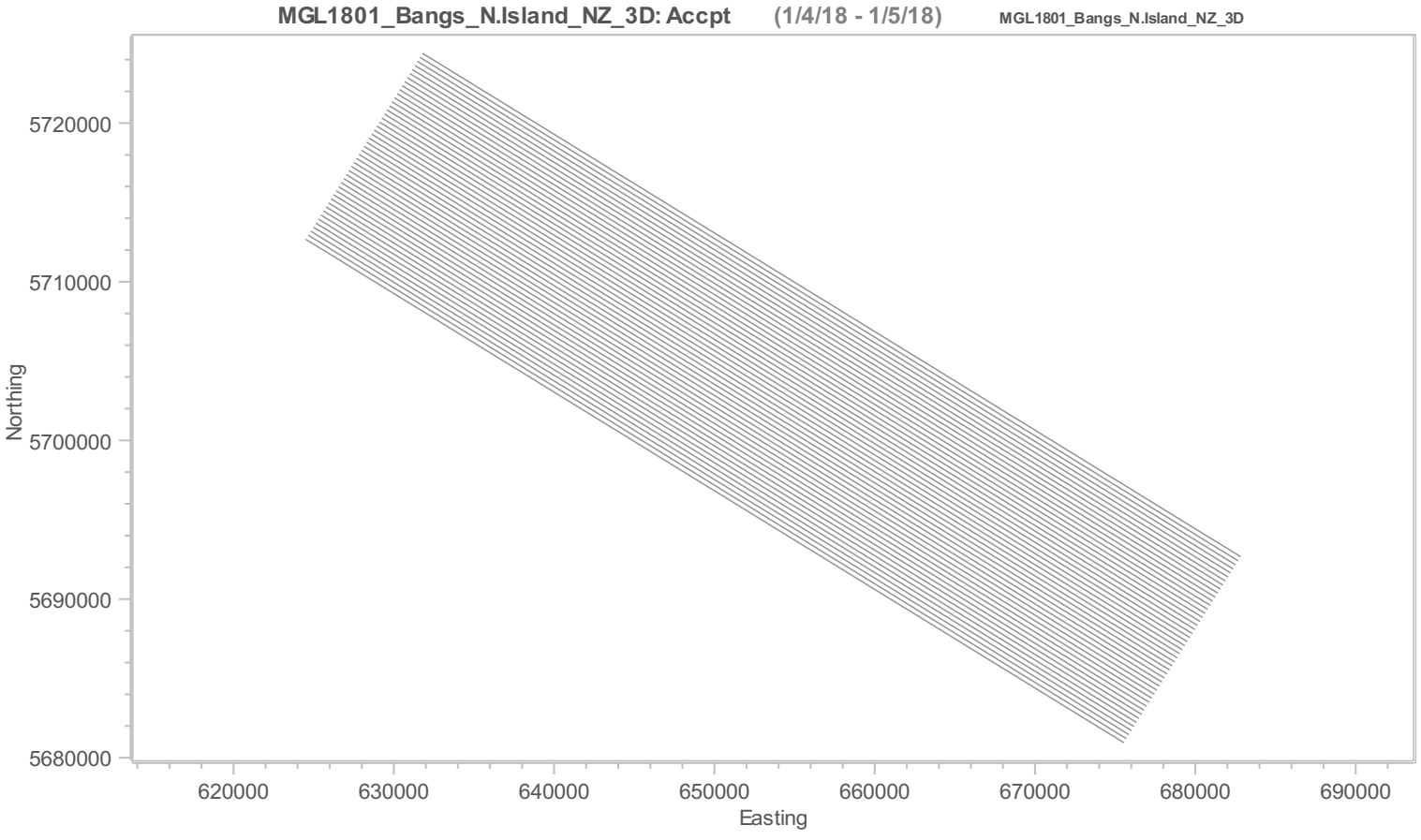
Average Daily Production	
Average Accepted Daily Production	0.00 km
Average Charged Daily Production	0.00 km

Production Day By Day (Chgd km) - Sail Line

Date	Vessel	First - Last Sequence	Production

Production Totals (Chgd km) - Sail Line

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**0.00**	**0.00**	**0.00**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sat 06 Jan

The vessel started the day alongside Pier #5 in Tauranga, NZ getting underway for MGL1801. At 00:28 UTC the vessel was clear of the dock and underway towards the deployment area in the Bay of Plenty.
At 05:41 UTC deployment of streamer #4 was started and by 10:30 UTC it was fully deployed. At that time the crew installed the 150m Separation rope and checked the trim of the streamer. At 12:27 UTC recovery of Streamer #4 started and by 14:22 UTC it was back onboard. At that time the deployment of Streamer #3 started. This continued until 18:32 UTC at which time the streamer was out on the lead-in and the Trim was being check, while the installation of the primary tow point was taking place. At 22:21 UTC the installation of the Primary tow point was completed and the trim looked good, so the streamer was recovered. Recovery continued throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Sat 06 Jan

The Vessel will start the continuing the recovery of Streamer #3. At ~ 00:40 UTC Streamer #3 will be onboard and the vessel will begin transiting around from the Bay of Plenty to near the prospect area to begin the final deployment of all towed equipment. At ~11:00 UTC the vessel will begin deployment of Streamer #1 and hopefully by the end of day should have at least Steamers 1 and 2 out on the barovanes and be in the process of deploying streamer #2.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Weather	SB_WX	Sat 6. Jan 00:00	Sat 6. Jan 00:28	0.467
Chargeable standby due to weather.				
Transit to Prospect	MB_TT	Sat 6. Jan 00:28	Sat 6. Jan 05:41	5.217
In transit to prospect, for mobilising deployment.				
Deployment	MB_DP	Sat 6. Jan 05:41	Sat 6. Jan 10:30	4.817
Mobilising offshore, deploying Streamer #4				
Testing	MB_TE	Sat 6. Jan 10:30	Sat 6. Jan 12:27	1.950
Mobilisation - Checking Trim on Streamer #4 and installing Separation rope.				
Deployment	MB_DP	Sat 6. Jan 12:27	Sat 6. Jan 14:22	1.917
Mobilising offshore, Recovery of Streamer #4				
Deployment	MB_DP	Sat 6. Jan 14:22	Sat 6. Jan 18:32	4.167
Mobilising offshore, deploying of Streamer #3				
Testing	MB_TE	Sat 6. Jan 18:32	Sat 6. Jan 22:21	3.817
Mobilisation - Checking Trim on Streamer #3 and installing Tow point/Tensioning Lead-in.				
Deployment	MB_DP	Sat 6. Jan 22:21	Sat 6. Jan 24:00	1.650
Mobilising offshore, recovery of Streamer #3				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

6-Jan	Hours	% Percent
Chargeable Standby	**0.467**	**1.944**
Weather	0.467	1.944
Mobilisation	**23.533**	**98.056**
Deployment	12.550	52.292
Testing	5.767	24.028
Transit to Prospect	5.217	21.736
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**68.367**	**94.954**
Deployment	12.550	17.431
Mob Ashore	44.833	62.269
Testing	5.767	8.009
Transit to Prospect	5.217	7.245
Chargeable Standby	**3.633**	**5.046**
Weather	3.633	5.046
Total	72.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 06 Jan

Navigation:
During the early morning hours one of the Antennas on the Seapath 330 system fail. This caused error in multiple system (EM122. HSN, Weather, and the DP systems) Due to the weather the Tech's could not get up to make repairs to the Seapath Antennas, the Antennas cable in the rack room from POSMV were moved over to Seapath to get all systems back online.

During Deployment TB#4 GPS stopped working. It will be address during the transit to the deployment area this evening.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 06 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

0%

Prime Lines Completed

0%

Preplot Lines	Complete	Incomplete	Pending
47	0	0	0

Percentages Charged	
Prime	0.00% of 3125.50 km

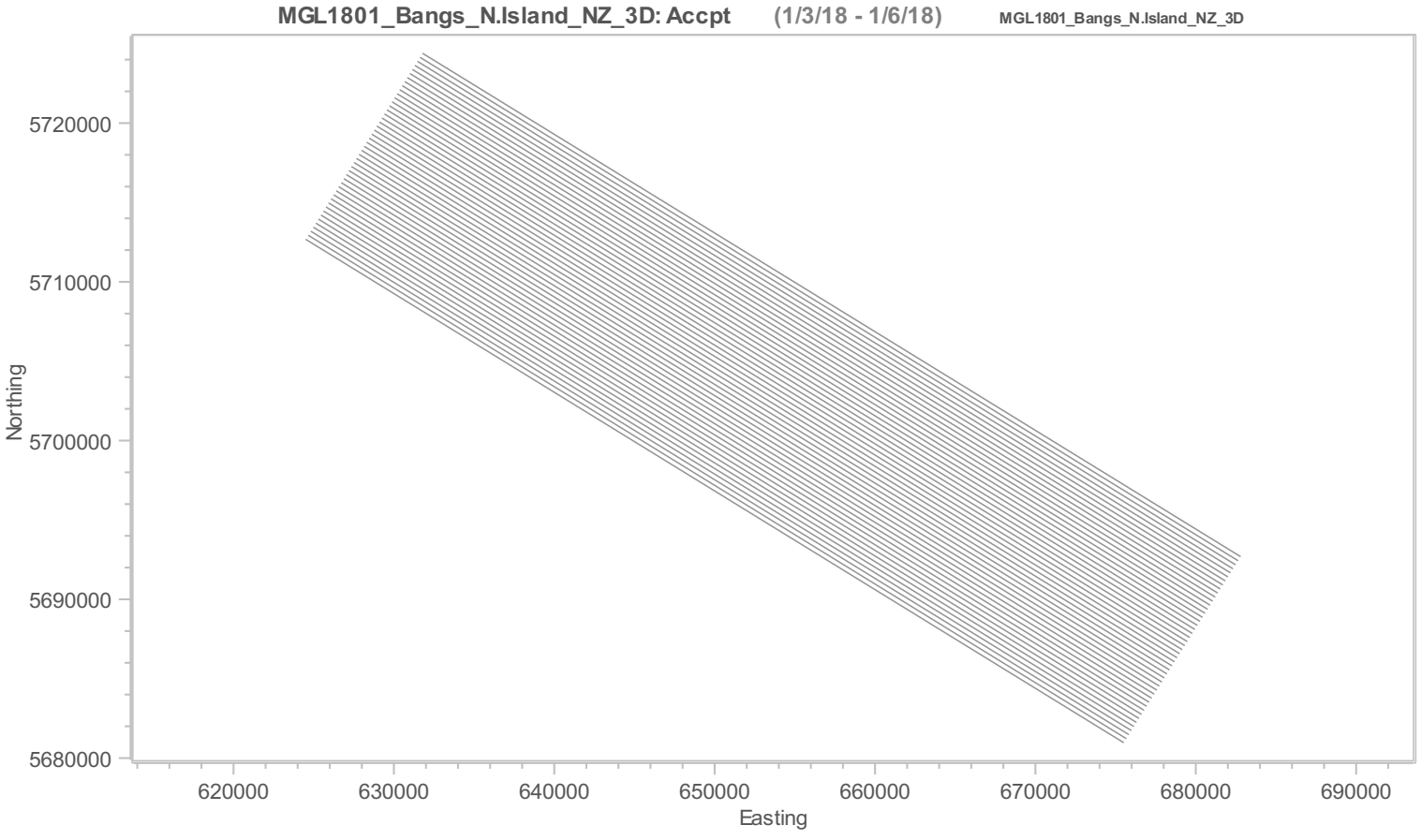
Average Daily Production	
Average Accepted Daily Production	0.00 km
Average Charged Daily Production	0.00 km

Production Day By Day (Chgd km) - Sail Line

Date	Vessel	First - Last Sequence	Production

Production Totals (Chgd km) - Sail Line

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**0.00**	**0.00**	**0.00**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sun 07 Jan

The vessel started the day continuing the recovery of Streamer #3 which was onboard at 00:36. The Vessel then began transiting from the Bay of Plenty to a location just to the NW of the prospect to begin the final Streamer deployment which started at 11:32 UTC and continued throughout the remainder of the day. By the end of the day Streamers 1 & 4 were fully deployed out on the Barovanes and the deployment of streamer #3 was underway.

Daily Comment Summaries - Plan for Tomorrow

Sun 07 Jan

The Vessel will start the day continuing with the deployment of the streamers. It is hope that by ~10:00 UTC all streamers will be deployed and the deployment of the source can begin and by ~20:00 UTC the vessel can begin production on Line MGL1801MC1012.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Deployment	MB_DP	Sun 7. Jan 00:00	Sun 7. Jan 00:36	0.600
Mobilising offshore, recovery of Streamer #3				
Transit to Prospect	MB_TT	Sun 7. Jan 00:36	Sun 7. Jan 11:32	10.933
Transit from Bay of Plenty around to the East side of NZ to start finial deployment of the towed equipment.				
Deployment	MB_DP	Sun 7. Jan 11:32	Sun 7. Jan 15:50	4.300
Mobilising offshore, deploying Streamer #1				
Deployment	MB_DP	Sun 7. Jan 15:50	Sun 7. Jan 17:08	1.300
Mobilising offshore, deploying of Stbd Barovane and Streamer one out to marks - 470 WT and 465 Streamer 1				
Deployment	MB_DP	Sun 7. Jan 17:08	Sun 7. Jan 20:56	3.800
Mobilising offshore, deploying streamer #4				
Deployment	MB_DP	Sun 7. Jan 20:56	Sun 7. Jan 21:56	1.000
Mobilising offshore,deploying of Port Barovane and Streamer one out to marks - 470 WT and 465 Streamer 4				
Deployment	MB_DP	Sun 7. Jan 21:56	Sun 7. Jan 24:00	2.067
Mobilising offshore, deploying Streamer #3.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

7-Jan	Hours	% Percent
Mobilisation	**24.000**	**100.000**
Deployment	13.067	54.444
Transit to Prospect	10.933	45.556
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**92.367**	**96.215**
Deployment	25.617	26.684
Mob Ashore	44.833	46.701
Testing	5.767	6.007
Transit to Prospect	16.150	16.823
Chargeable Standby	**3.633**	**3.785**
Weather	3.633	3.785
Total	96.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 07 Jan

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During the deployment of Streamer #3 it was found that the strain member in the TES (Tail Elastic Sections) had fail. The Section was replaced with a spare and the streamer deployment continued.

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 07 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

0%

Prime Lines Completed

0%

Preplot Lines	Complete	Incomplete	Pending
47	0	0	0

Percentages Charged	
Prime	0.00% of 3125.50 km

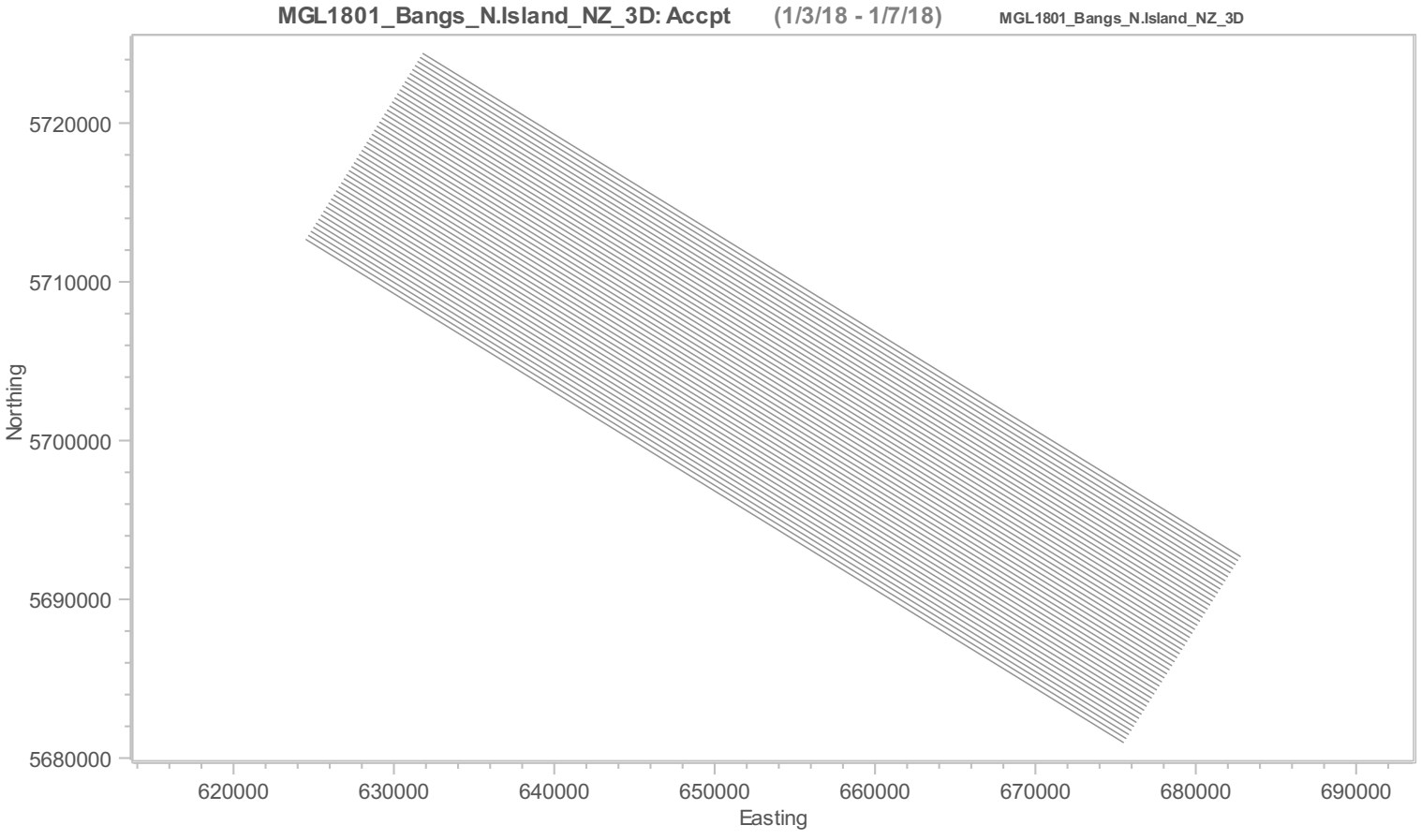
Average Daily Production	
Average Accepted Daily Production	0.00 km
Average Charged Daily Production	0.00 km

Production Day By Day (Chgd km) - Sail Line

Date	Vessel	First - Last Sequence	Production

Production Totals (Chgd km) - Sail Line

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**0.00**	**0.00**	**0.00**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Mon 08 Jan

The vessel started the day continuing deployment of the towed streamer equipment. By 14:00 UTC all streamers were deployed out on their marks, and which time the deployment of the seismic source began an was completed at 18:21 UTC. At which time the source ramped up was and this completed at 18:53 UTC. The vessel continued transiting back towards LINE MGL1801MC1012 testing all seismic systems and trouble shooting the issues of the Source not Flip-Flopping when receiving external triggers from Spectra. At 23:53 UTC the vessel passed the first shot of MGL1801MC1012, which started the downtime. The vessel continued down line while the techs continued to trouble shoot the Triggering issue.

Daily Comment Summaries - Plan for Tomorrow

Mon 08 Jan

The Vessel will start the day continuing to transit down MGL1801MC1012 while the techs continue to trouble shoot the Source not Flip-Floping when receiving external triggers from Spectra. Once this issues has been resolved the vessel will begin production.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Deployment	MB_DP	Mon 8. Jan 00:00	Mon 8. Jan 02:30	2.500
Mobilising offshore, deploying Streamer #3.				
Deployment	MB_DP	Mon 8. Jan 02:30	Mon 8. Jan 04:15	1.750
Mobilising offshore, Recovering Streamer #4 and Port Barovane to connect separation				
Deployment	MB_DP	Mon 8. Jan 04:15	Mon 8. Jan 06:02	1.783
Mobilising Offshore - Per-pairing to deploy Streamer #2				
Deployment	MB_DP	Mon 8. Jan 06:02	Mon 8. Jan 10:21	4.317
Mobilising offshore, deploying Streamer #2				
Deployment	MB_DP	Mon 8. Jan 10:21	Mon 8. Jan 11:35	1.233
Mobilising offshore, Uncrossing Streamers 1 and 2				
Deployment	MB_DP	Mon 8. Jan 11:35	Mon 8. Jan 14:00	2.417
Mobilising offshore, . Streamer #2 connected to the Separation rope and Deploying out on Stbd Barovane				
Transit to Prospect	MB_TT	Mon 8. Jan 14:00	Mon 8. Jan 15:00	1.000
Maneuvering to Start deployment of sources.				
Deployment	MB_DP	Mon 8. Jan 15:00	Mon 8. Jan 18:21	3.350
Mobilising offshore, deploying of the Source.				
Testing	MB_TE	Mon 8. Jan 18:21	Mon 8. Jan 18:53	0.533
Mobilisation -Ramping up Sources				
Testing	MB_TE	Mon 8. Jan 18:53	Mon 8. Jan 23:53	5.000
Mobilisation - Testing and trouble shooting of Lab Systems to get the sources to flip / flop between one another.				
Nav Systems Onboard	DT_NO	Mon 8. Jan 23:53	Mon 8. Jan 24:00	0.117
Downtime- Continue trouble shooting Lab Systems to get the sources to flip / flop between one another.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

8-Jan	Hours	% Percent
DownTime	**0.117**	**0.486**
Nav Systems Onboard	0.117	0.486
Mobilisation	**23.883**	**99.514**
Deployment	17.350	72.292
Testing	5.533	23.056
Transit to Prospect	1.000	4.167
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**96.875**
Deployment	48.733	40.611
Mob Ashore	44.833	37.361
Testing	5.533	4.611
Transit to Prospect	17.150	14.292
DownTime	**0.117**	**0.097**
Nav Systems Onboard	0.117	0.097
Chargeable Standby	**3.633**	**3.028**
Weather	3.633	3.028
Total	120.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 08 Jan

Navigation:
The Digishot Source Controller is not receiving the source select command from Spectra and only first one of the sources when in External Cycle.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 08 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

0%

Prime Lines Completed

0%

Preplot Lines	Complete	Incomplete	Pending
47	0	0	0

Percentages Charged	
Prime	0.00% of 3125.50 km

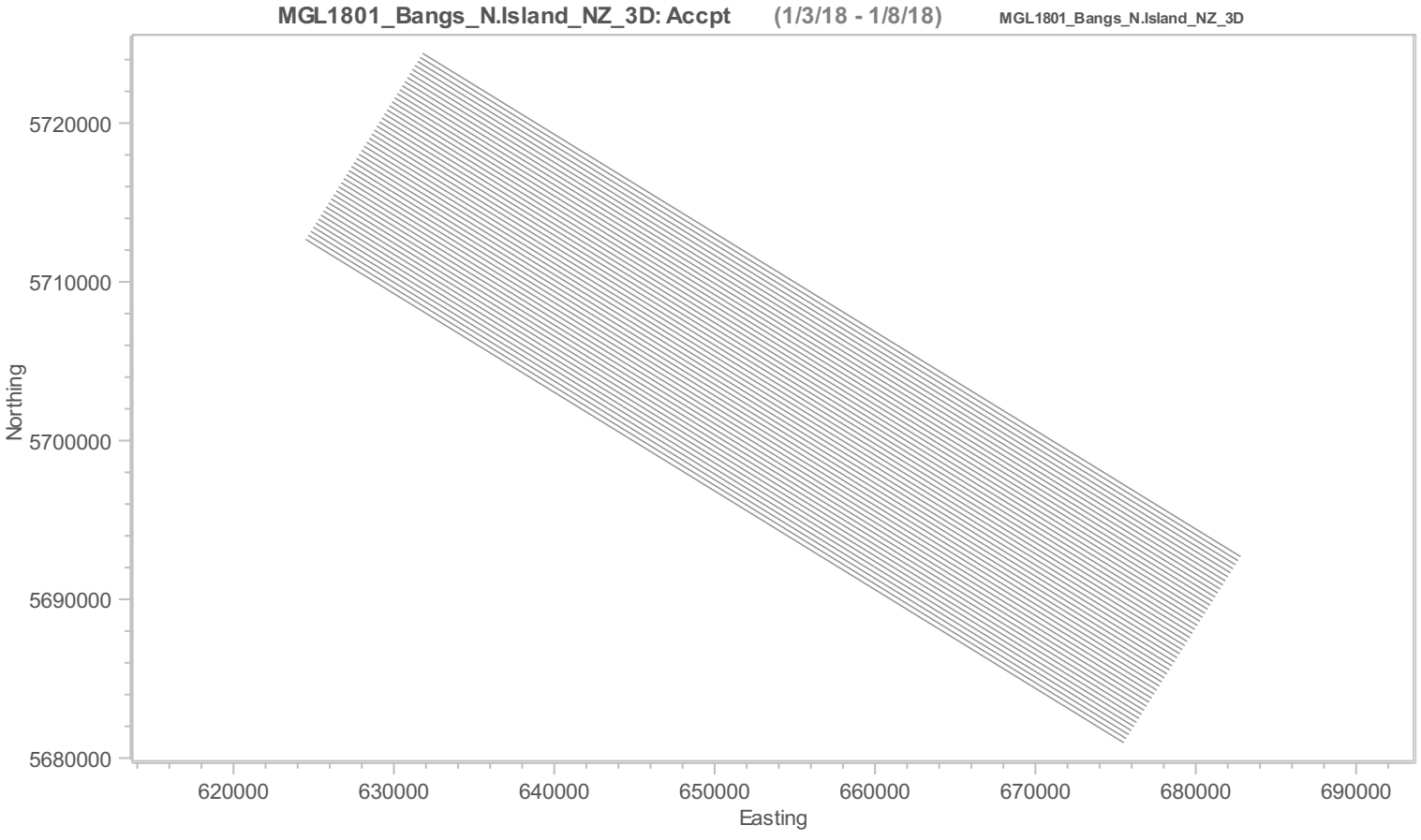
Average Daily Production	
Average Accepted Daily Production	0.00 km
Average Charged Daily Production	0.00 km

Production Day By Day (Chgd km) - Sail Line

Date	Vessel	First - Last Sequence	Production

Production Totals (Chgd km) - Sail Line

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**0.00**	**0.00**	**0.00**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Tue 09 Jan

The vessel started the day continuing trouble shooting the issues of the Source not Flip-Flopping when receiving external triggers from Spectra. At 12:43 UTC the issues with the Spectra rTNU's configuration was resolved and the vessel began transiting back to line 1196. At 18:25 UTC production began on line 1196 and continued throughout the remainder of the day. At the start of Line 1196, there was some issues with the Nav header getting over to the recording system, which was quickly resolved.

Daily Comment Summaries - Plan for Tomorrow

Tue 09 Jan

The Vessel will start the day continuing production on line 1196, which is expected to completed at ~02:20 UTC. The vessel will make a line change to Line 1020 and before the end of day should also acquire data on line 1204,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Nav Systems Onboard	DT_NO	Tue 9. Jan 00:00	Tue 9. Jan 12:43	12.717
Downtime- Continue trouble shooting Lab Systems to get the sources to flip / flop between one another.				
Nav Systems Onboard	DT_NO	Tue 9. Jan 12:43	Tue 9. Jan 18:25	5.700
Downtime - Found a configuration error in the power rTNU's for spectra that was causing the system not to send the flip flop command to the Source Controller. Heading back towards line.				
Production Prime	AC_PP	Tue 9. Jan 18:25	Tue 9. Jan 24:00	5.583
SOL Seq 1 Line:MGL18011196 FGSP=3634 FCSP=3634 Hdg=121.9° Prime MSP Seq 1 Line:MGL18011196 LGSP=1740 LCSP=1740 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

9-Jan	Hours	% Percent
Acquisition	**5.583**	**23.264**
Production Prime	5.583	23.264
DownTime	**18.417**	**76.736**
Nav Systems Onboard	18.417	76.736
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**80.729**
Deployment	48.733	33.843
Mob Ashore	44.833	31.134
Testing	5.533	3.843
Transit to Prospect	17.150	11.910

Category	Hours	% Percent
DownTime	**18.533**	**12.870**
Nav Systems Onboard	18.533	12.870
Acquisition	**5.583**	**3.877**
Production Prime	5.583	3.877
Chargeable Standby	**3.633**	**2.523**
Weather	3.633	2.523
Total	144.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 09 Jan

Navigation:
The DigiShot Source Controller was no receiving the source select command from Spectra, which turned out to be a configuration error in the rTNU's.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 09 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

2%

Prime Lines Completed

0%

Preplot Lines	Complete	Incomplete	Pending
47	0	0	0

Percentages Charged	
Prime	1.51% of 3125.50 km (Sail Line)

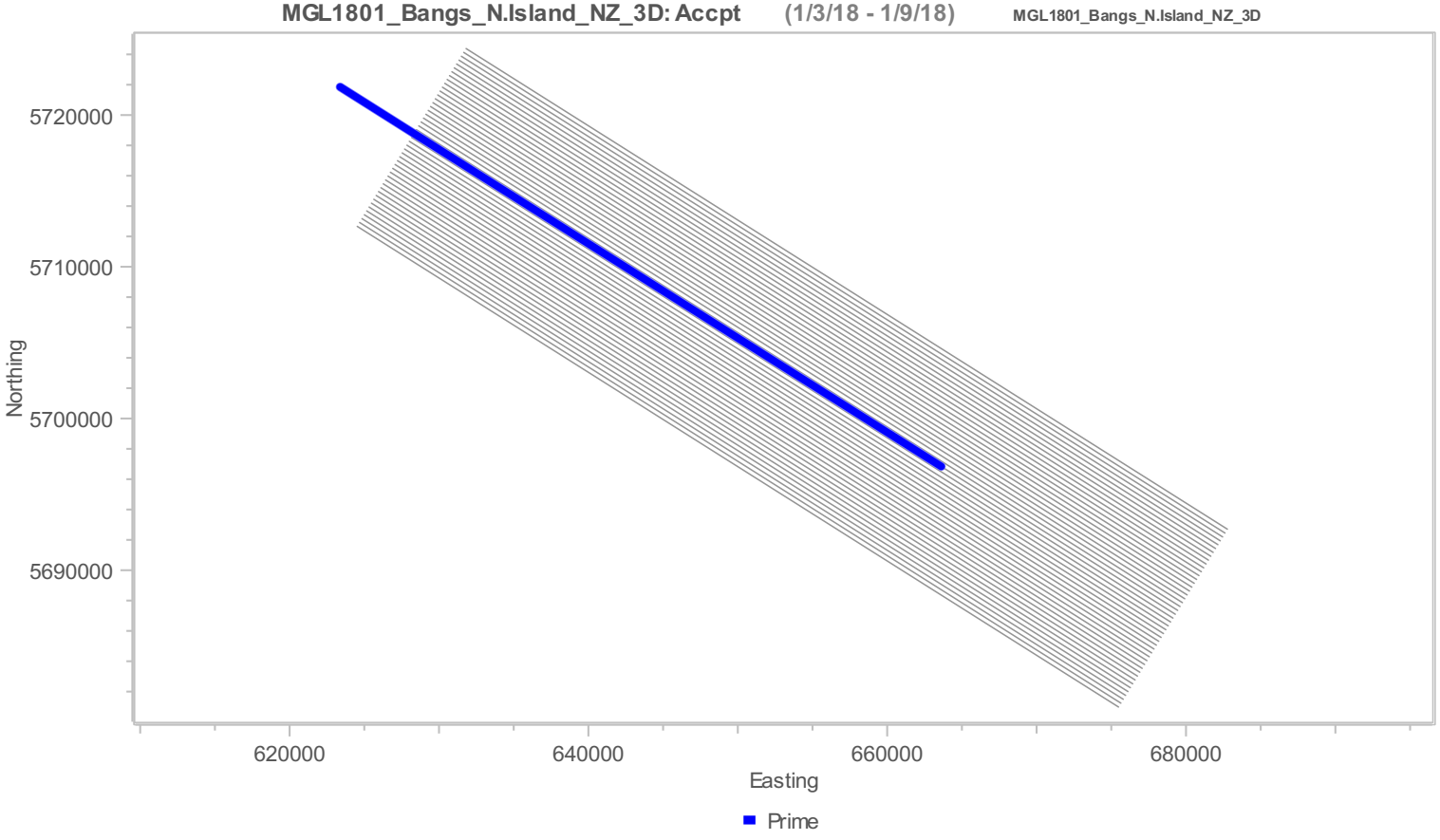
Average Daily Production	
Average Accepted Daily Production	47.35 km
Average Charged Daily Production	47.35 km

Production Day By Day (Chgd km by interval) - Sail Line

Date	Vessel	First - Last Sequence	Production
Tue 9 Jan	Marcus G Langseth	1	47.35
Total Production:			**47.35**

Production Totals (Chgd km by interval) - Sail Line

Charged km	Day	Week	Month	Project
Prime	47.35	47.35	47.35	47.35
Infill	0.00	0.00	0.00	0.00
Combined	**47.35**	**47.35**	**47.35**	**47.35**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Wed 10 Jan

The vessel started the day continuing production on line 1196. At 02:52 UTC the vessel completed line 1196 and made a line change to 1020, which started at 04:42 UTC and continued until 12:19 UTC. At 12:19 UTC the vessel made a line change to line 1204, which started at 14:21 UTC and continued until 21:52 UTC. At which time the vessel started a line change to Line 1028. The line change continued throughout the remainder of the day. During the line change between Line 1204 and Line 1028, the vessel recovered Sub_Array #1 to preform some maintenance on Element #9, which had been showing sights of leakage on it firing line.

Daily Comment Summaries - Plan for Tomorrow

Wed 10 Jan

The Vessel will start the day continuing the line change to line 1028, which is expected to completed at ~00:05 UTC. The vessel complete that line change and before the end of day should also acquire data on lines 1028, 1212, and 1036,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Wed 10. Jan 00:00	Wed 10. Jan 02:32	2.533
SOL Seq 1 Line:MGL1801M1196 Preplot:1196 FGSP=1739 FCSP=1739 Hdg=121.9° Prime EOL Seq 1 Line:MGL1801M1196 Preplot:1196 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Wed 10. Jan 02:32	Wed 10. Jan 04:42	2.167
Nominal Prime line change.				
Production Prime	AC_PP	Wed 10. Jan 04:42	Wed 10. Jan 12:19	7.617
SOL Seq 2 Line:MGL1801M1020 Preplot:1020 FGSP=936 FCSP=936 Hdg=301.9° Prime EOL Seq 2 Line:MGL1801M1020 Preplot:1020 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Wed 10. Jan 12:19	Wed 10. Jan 14:21	2.033
Nominal Prime line change.				
Production Prime	AC_PP	Wed 10. Jan 14:21	Wed 10. Jan 21:52	7.517
SOL Seq 3 Line:MGL1801M1204 Preplot:1204 FGSP=3491 FCSP=3491 Hdg=121.9° Prime EOL Seq 3 Line:MGL1801M1204 Preplot:1204 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Wed 10. Jan 21:52	Wed 10. Jan 24:00	2.133
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

10-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	6.333	26.389
Production Prime	17.667	73.611
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**69.196**
Deployment	48.733	29.008
Mob Ashore	44.833	26.687
Testing	5.533	3.294
Transit to Prospect	17.150	10.208
DownTime	**18.533**	**11.032**
Nav Systems Onboard	18.533	11.032
Acquisition	**29.583**	**17.609**
Prime Line Change	6.333	3.770
Production Prime	23.250	13.839
Chargeable Standby	**3.633**	**2.163**
Weather	3.633	2.163
Total	168.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 10 Jan

Navigation:
The DigiShot Source Controller was no receiving the source select command from Spectra, which turned out to be a configuration error in the rTNU's.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 10 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

6%

Prime Lines Completed

6%

Preplot Lines	Complete	Incomplete	Pending
47	3	0	0

Percentages Charged	
Prime	6.36% of 3125.50 km (Sail Line)

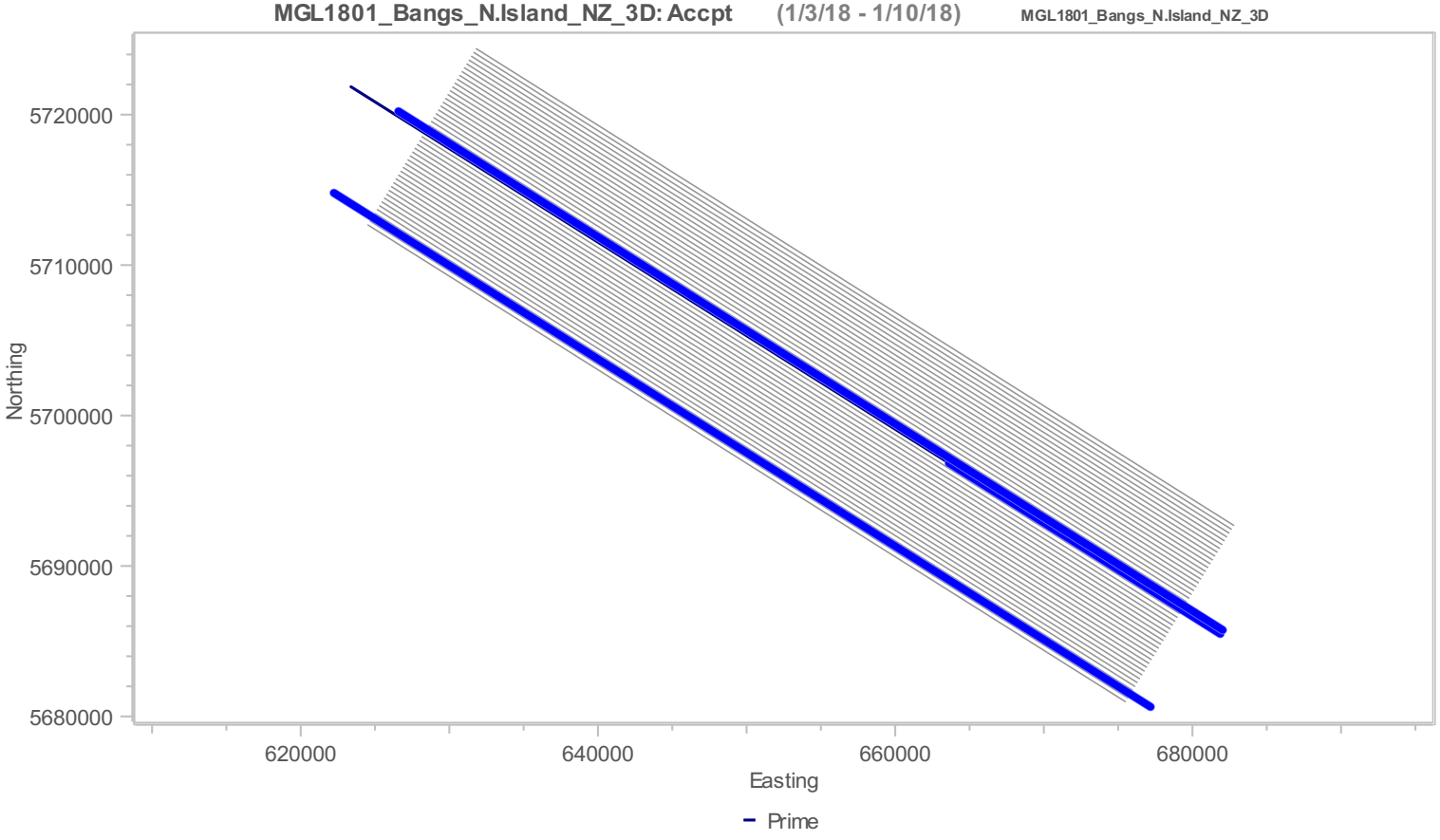
Average Daily Production	
Average Accepted Daily Production	99.44 km
Average Charged Daily Production	99.44 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Wed 10 Jan	Marcus G Langseth	1 - 3	151.53
Total Production:			**151.53**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	151.53	198.88	198.88	198.88
Infill	0.00	0.00	0.00	0.00
Combined	**151.53**	**198.88**	**198.88**	**198.88**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Thu 11 Jan

The vessel started the day continuing production on line change to Line 1028. At 00:05 UTC the vessel started production on Line 1028, which continued until 07:46 UTC. The vessel made a line change to Line 1212 which started at 10:02 UTC and continued until 17:25 UTC. The vessel made another line change to Line 1036 which started at 19:31 UTC and continued throughout the remainder of the day.

During Line Change between Line 1028 and Line 1212. The Towed Equipment was adjust to get a better front end geometry. The Barovanes are now Deployed out ~445m, Lead-ins 1 and 4, are now Deployed out ~440m and Lead-ins 2 and 3 are deployed out ~360m. The Source is Deployed out on Arrays 1 & 4 are out 263m with their Tow points being 75m from Bell. Arrays 2 & 3 are out 260m with their Tow points at 80m.

Daily Comment Summaries - Plan for Tomorrow

Thu 11 Jan

The Vessel will start the day continuing line 1036, which is expected to completed at ~03:30 UTC. The vessel should also acquire data on lines 1220, 1044, and 1228 before the end of the day.,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Thu 11. Jan 00:00	Thu 11. Jan 00:05	0.083
Nominal Prime line change.				
Production Prime	AC_PP	Thu 11. Jan 00:05	Thu 11. Jan 07:46	7.683
SOL Seq 4 Line:MGL1801M1028 Preplot:1028 FGSP=924 FCSP=924 Hdg=301.9° Prime EOL Seq 4 Line:MGL1801M1028 Preplot:1028 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Thu 11. Jan 07:46	Thu 11. Jan 10:02	2.267
Nominal Prime line change.				
Production Prime	AC_PP	Thu 11. Jan 10:02	Thu 11. Jan 17:25	7.383
SOL Seq 5 Line:MGL1801M1212 Preplot:1212 FGSP=3415 FCSP=3415 Hdg=121.9° Prime EOL Seq 5 Line:MGL1801M1212 Preplot:1212 LGSP=878 LCSP=878 Complete				
Prime Line Change	AC_PLC	Thu 11. Jan 17:25	Thu 11. Jan 19:31	2.100
Nominal Prime line change.				
Production Prime	AC_PP	Thu 11. Jan 19:31	Thu 11. Jan 24:00	4.483
SOL Seq 6 Line:MGL18011036 FGSP=855 FCSP=855 Hdg=301.9° Prime MSP Seq 6 Line:MGL18011036 LGSP=2411 LCSP=2411 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

11-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	4.450	18.542
Production Prime	19.550	81.458

11-Jan	Hours	% Percent
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**60.547**
Deployment	48.733	25.382
Mob Ashore	44.833	23.351
Testing	5.533	2.882
Transit to Prospect	17.150	8.932
DownTime	**18.533**	**9.653**
Nav Systems Onboard	18.533	9.653
Acquisition	**53.583**	**27.908**
Prime Line Change	10.783	5.616
Production Prime	42.800	22.292
Chargeable Standby	**3.633**	**1.892**
Weather	3.633	1.892
Total	192.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 11 Jan

Navigation:
The DigiShot Source Controller was no receiving the source select command from Spectra, which turned out to be a configuration error in the rTNU's.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 11 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged 12%

Prime Lines Completed 11%

Preplot Lines	Complete	Incomplete	Pending
47	5	0	0

Percentages Charged	
Prime	11.72% of 3125.50 km (Sail Line)

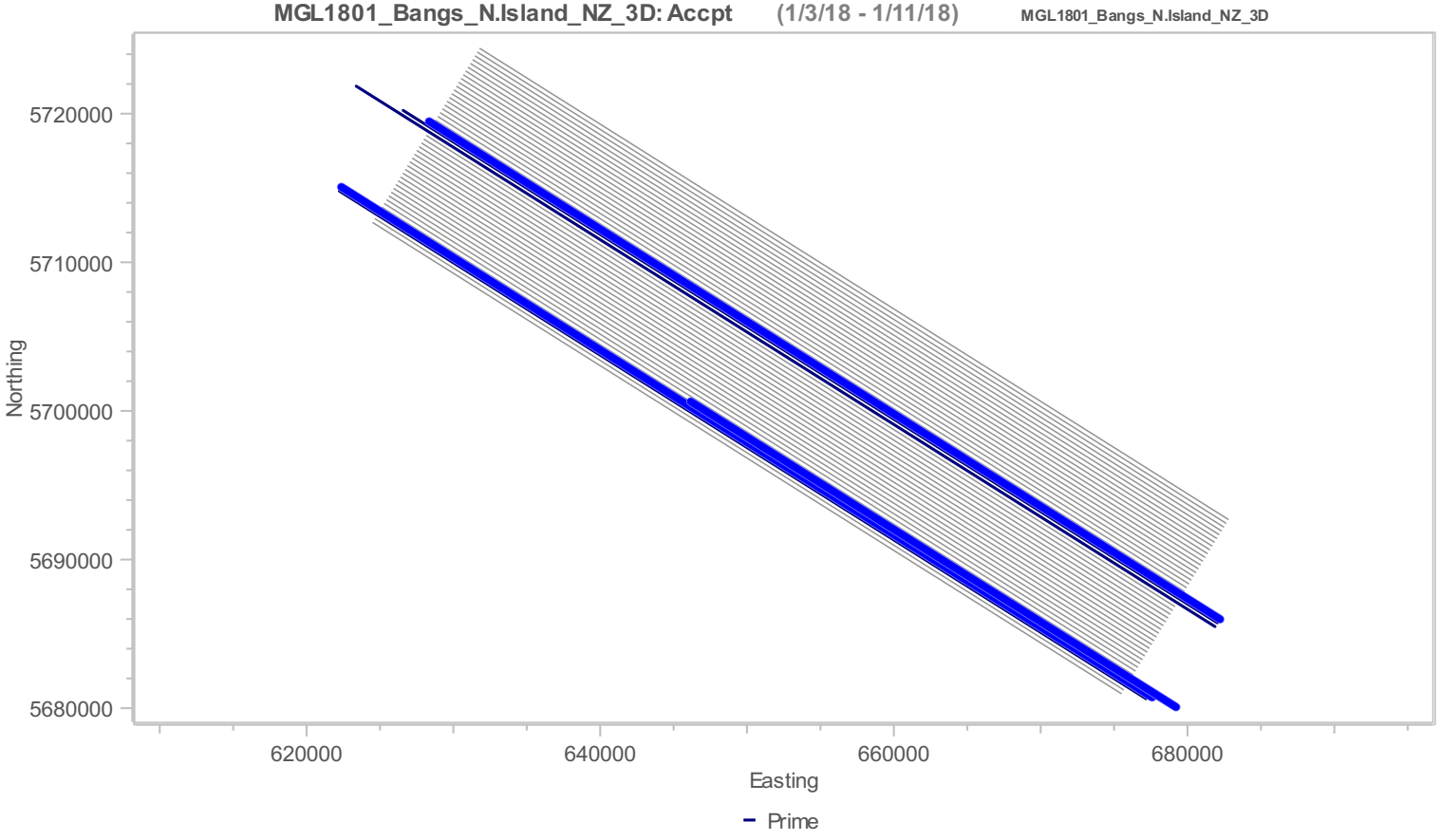
Average Daily Production	
Average Accepted Daily Production	122.08 km
Average Charged Daily Production	122.08 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Thu 11 Jan	Marcus G Langseth	4 - 6	167.35
Total Production:			**167.35**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	167.35	366.23	366.23	366.23
Infill	0.00	0.00	0.00	0.00
Combined	**167.35**	**366.23**	**366.23**	**366.23**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Fri 12 Jan

The vessel started the day continuing production on line change to Line 1036, which continued until 03:15 UTC. The vessel made a line change to Line 1220 which started at 05:13 UTC and continued until 12:46 UTC. The vessel made another line change to Line 1044 which started at 19:41 UTC and continued to 22:50 UTC. From there to end of the day the vessel remained on line change to Line 1228.
.

Daily Comment Summaries - Plan for Tomorrow

Fri 12 Jan

The Vessel will start the day continuing line change to 1228 which is expected to completed at ~01:10 UTC. The vessel should also acquire data on lines 1228, 1052, and 1236 before the end of the day.,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 12. Jan 00:00	Fri 12. Jan 03:15	3.250
SOL Seq 6 Line:MGL1801M1036 Preplot:1036 FGSP=2412 FCSP=2412 Hdg=301.9° Prime EOL Seq 6 Line:MGL1801M1036 Preplot:1036 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Fri 12. Jan 03:15	Fri 12. Jan 05:13	1.967
Nominal Prime line change.				
Production Prime	AC_PP	Fri 12. Jan 05:13	Fri 12. Jan 12:46	7.550
SOL Seq 7 Line:MGL1801M1220 Preplot:1220 FGSP=3480 FCSP=3480 Hdg=121.9° Prime EOL Seq 7 Line:MGL1801M1220 Preplot:1220 LGSP=878 LCSP=878 Complete				
Prime Line Change	AC_PLC	Fri 12. Jan 12:46	Fri 12. Jan 14:41	1.917
Nominal Prime line change.				
Production Prime	AC_PP	Fri 12. Jan 14:41	Fri 12. Jan 22:50	8.150
SOL Seq 8 Line:MGL1801M1044 Preplot:1044 FGSP=774 FCSP=774 Hdg=301.9° Prime EOL Seq 8 Line:MGL1801M1044 Preplot:1044 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Fri 12. Jan 22:50	Fri 12. Jan 24:00	1.167
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

12-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	5.050	21.042
Production Prime	18.950	78.958
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**53.819**
Deployment	48.733	22.562
Mob Ashore	44.833	20.756
Testing	5.533	2.562
Transit to Prospect	17.150	7.940
DownTime	**18.533**	**8.580**
Nav Systems Onboard	18.533	8.580
Acquisition	**77.583**	**35.918**
Prime Line Change	15.833	7.330
Production Prime	61.750	28.588
Chargeable Standby	**3.633**	**1.682**
Weather	3.633	1.682
Total	216.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 12 Jan

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 12 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

17%

Prime Lines Completed

17%

Preplot Lines	Complete	Incomplete	Pending
47	8	0	0

Percentages Charged	
Prime	16.89% of 3125.50 km (Sail Line)

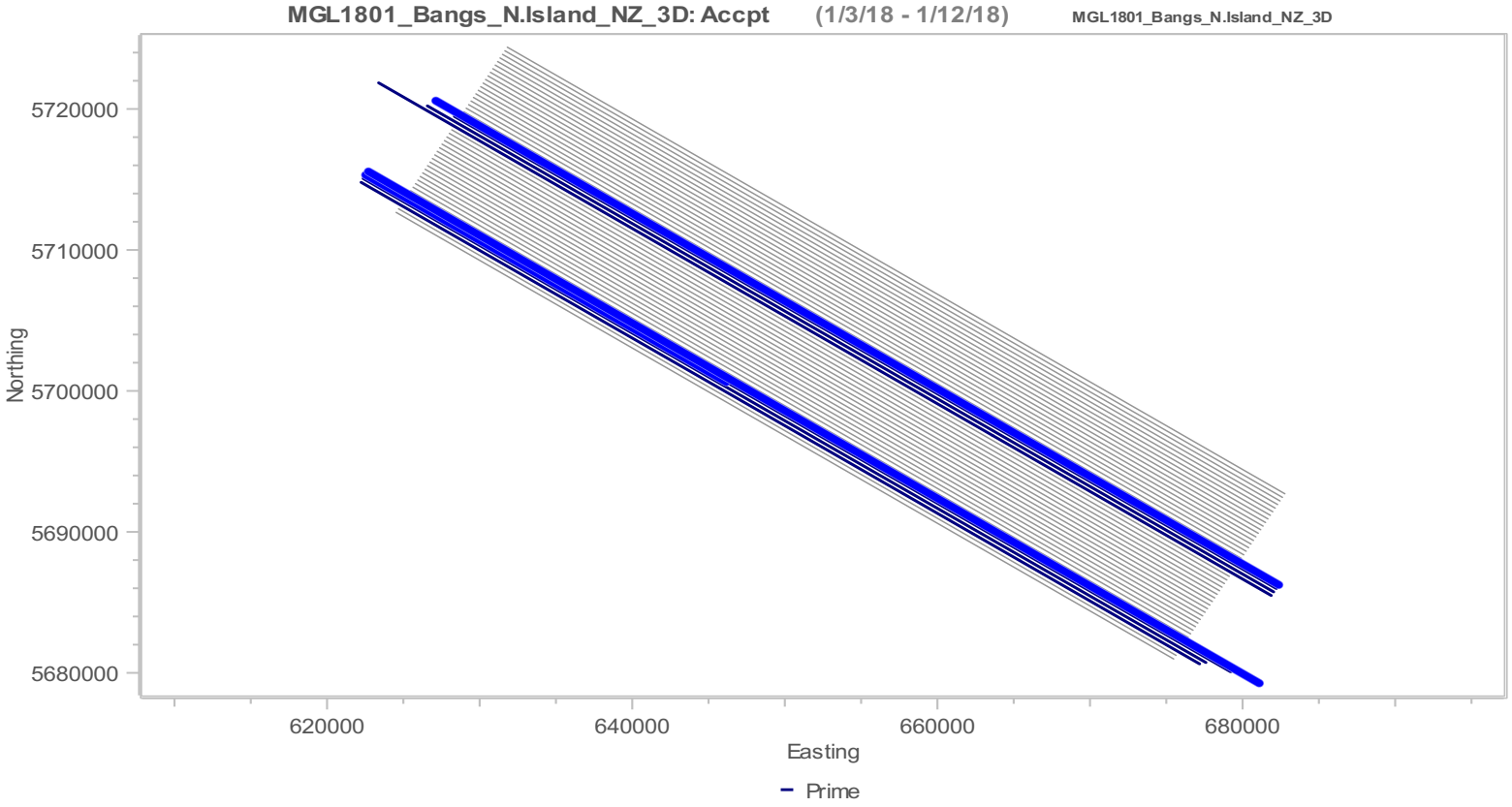
Average Daily Production	
Average Accepted Daily Production	131.97 km
Average Charged Daily Production	131.97 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Fri 12 Jan	Marcus G Langseth	6 - 8	161.65
Total Production:			**161.65**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	161.65	527.88	527.88	527.88
Infill	0.00	0.00	0.00	0.00
Combined	**161.65**	**527.88**	**527.88**	**527.88**


MGL1801_Bangs_N.Island_NZ_3D: Accpt
(1/3/18 - 1/12/18)
MGL1801_Bangs_N.Island_NZ_3D
5720000
5710000
5700000
5690000
5680000
Northing
620000
640000
660000
680000
Easting
Prime

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sat 13 Jan

The vessel started the day continuing line change to Line 1228, which started at 00:58 and ended at 08:34 UTC. The vessel made a line change to Line 1052, which started at 10:47 UTC and continued until 18:21 UTC. The vessel made another line change to Line 1236 which started at 20:07 UTC and continued through the end of the day.

From 03:11 to 05:00 the Uncontaminated Sea Water system was off-line for pump Maintenance. During this time the pC02 and TSG were secured. In between lines 1228 and 1052 the Source arrays were recovered ~7m to bring the separation closer to nominal.

.

Daily Comment Summaries - Plan for Tomorrow

Sat 13 Jan

The Vessel will start the day continuing line 1236 which is expected to completed at ~04:00 UTC. The vessel should also acquire data on lines 1236, 1052I (infill) and 1244 before the end of the day.,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Sat 13. Jan 00:00	Sat 13. Jan 00:58	0.967
Nominal Prime line change.				
Production Prime	AC_PP	Sat 13. Jan 00:58	Sat 13. Jan 08:34	7.600
SOL Seq 9 Line:MGL1801M1228 Preplot:1228 FGSP=3502 FCSP=3502 Hdg=121.9° Prime EOL Seq 9 Line:MGL1801M1228 Preplot:1228 LGSP=878 LCSP=878 Complete				
Prime Line Change	AC_PLC	Sat 13. Jan 08:34	Sat 13. Jan 10:47	2.217
Nominal Prime line change.				
Production Prime	AC_PP	Sat 13. Jan 10:47	Sat 13. Jan 18:21	7.567
SOL Seq 10 Line:MGL1801M1052 Preplot:1052 FGSP=909 FCSP=909 Hdg=301.9° Prime EOL Seq 10 Line:MGL1801M1052 Preplot:1052 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sat 13. Jan 18:21	Sat 13. Jan 20:07	1.767
Nominal Prime line change.				
Production Prime	AC_PP	Sat 13. Jan 20:07	Sat 13. Jan 24:00	3.883
SOL Seq 11 Line:MGL1801M1236 Preplot:1236 FGSP=3562 FCSP=3562 Hdg=121.9° Prime MSP Seq 11 Line:MGL1801M1236 Preplot:1236 LGSP=2215 LCSP=2215 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

13-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	4.950	20.625
Production Prime	19.050	79.375
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**48.438**
Deployment	48.733	20.306
Mob Ashore	44.833	18.681
Testing	5.533	2.306
Transit to Prospect	17.150	7.146
DownTime	**18.533**	**7.722**
Nav Systems Onboard	18.533	7.722
Acquisition	**101.583**	**42.326**
Prime Line Change	20.783	8.660
Production Prime	80.800	33.667
Chargeable Standby	**3.633**	**1.514**
Weather	3.633	1.514
Total	240.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 13 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
From 03:11 UTC to 05:00 UTC the Uncontaminated Sea Water system was off-line for pump Maintenance. During this time the pC02 and TSG were secured.

Miscellaneous:
No Major Issues to Report.

Daily Comment Summaries - Personnel Onboard

Sat 13 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged 22%

Prime Lines Completed 21%

Preplot Lines	Complete	Incomplete	Pending
47	10	0	0

Percentages Charged	
Prime	22.16% of 3125.50 km (Sail Line)

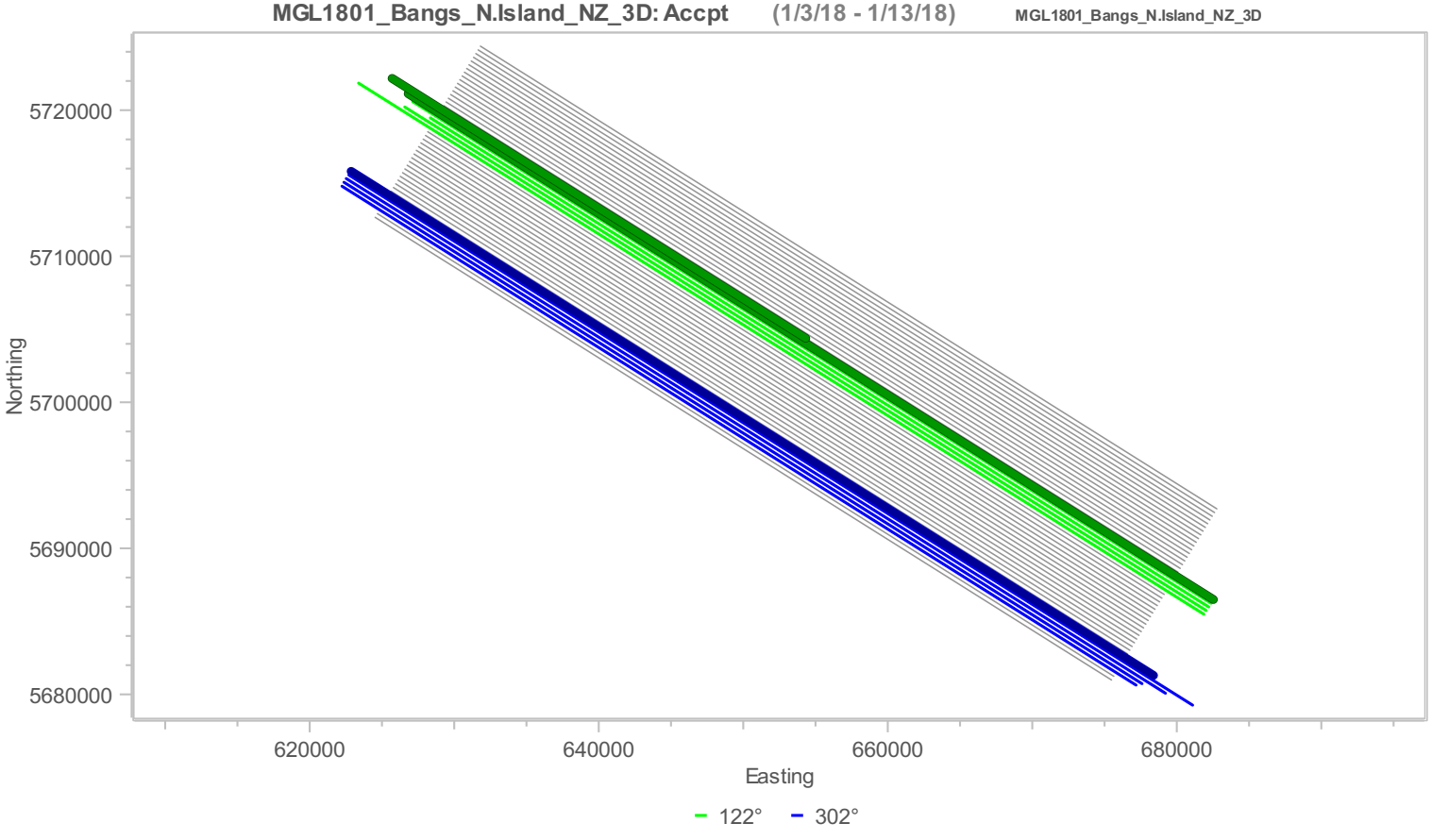
Average Daily Production	
Average Accepted Daily Production	138.51 km
Average Charged Daily Production	138.51 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Sat 13 Jan	Marcus G Langseth	9 - 11	164.65
Total Production:			**164.65**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	164.65	692.52	692.52	692.52
Infill	0.00	0.00	0.00	0.00
Combined	**164.65**	**692.52**	**692.52**	**692.52**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sun 14 Jan

The vessel started the day continuing line 1236, which ended at 04:03 UTC. The vessel made a line change to Line 1052I (Infill), which started at 06:40 UTC and continued until 14:17 UTC. The vessel made another line change to Line 1244 which started at 16:05 UTC and continued to 23:59 UTC. At the end of the day the vessel was on a line change to Line 1060.

From 21:06 to 22:20 the Uncontaminated Sea Water system was off-line for pump Maintenance. During this time the pC02 and TSG were secured. In between lines 1236 and 1052I the Source arrays were recovered additional ~10m to bring the separation closer to nominal of 75m COS to COS.
.

Daily Comment Summaries - Plan for Tomorrow

Sun 14 Jan

The Vessel will start the day continuing line a line change to 1060 which is expected to completed at ~02:30 UTC. The vessel should also acquire data on lines 1060, 1244, and 1068 before the end of the day. During the Line Change between Line 1236 and 1060, Sub-Arrays 3 & 4 will be recovered for maintenance an to make repairs on Element S4G4.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sun 14. Jan 00:00	Sun 14. Jan 04:03	4.050
SOL Seq 11 Line:MGL1801M1236 Preplot:1236 FGSP=2214 FCSP=2214 Hdg=121.9° Prime EOL Seq 11 Line:MGL1801M1236 Preplot:1236 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sun 14. Jan 04:03	Sun 14. Jan 06:40	2.617
Nominal Prime line change.				
Production Infill	AC_PI	Sun 14. Jan 06:40	Sun 14. Jan 14:17	7.617
SOL Seq 12 Line:MGL1801I1052 Preplot:1052 FGSP=942 FCSP=942 Hdg=301.9° Infill EOL Seq 12 Line:MGL1801I1052 Preplot:1052 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sun 14. Jan 14:17	Sun 14. Jan 16:05	1.800
Nominal Prime line change.				
Production Prime	AC_PP	Sun 14. Jan 16:05	Sun 14. Jan 23:59	7.900
SOL Seq 13 Line:MGL1801M1244 Preplot:1244 FGSP=3542 FCSP=3542 Hdg=121.9° Prime EOL Seq 13 Line:MGL1801M1244 Preplot:1244 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sun 14. Jan 23:59	Sun 14. Jan 24:00	0.017
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

14-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	4.433	18.472
Production Infill	7.617	31.736
Production Prime	11.950	49.792
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**44.034**
Deployment	48.733	18.460
Mob Ashore	44.833	16.982
Testing	5.533	2.096
Transit to Prospect	17.150	6.496
DownTime	**18.533**	**7.020**
Nav Systems Onboard	18.533	7.020
Acquisition	**125.583**	**47.569**
Prime Line Change	25.217	9.552
Production Infill	7.617	2.885
Production Prime	92.750	35.133
Chargeable Standby	**3.633**	**1.376**
Weather	3.633	1.376
Total	264.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 14 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
Source Element 4 on Sub-Array 4 was having timing issues and was swapped out with the Spare on that string for line 1244.

General Purpose Science:
From 21:06 to 22:20 the Uncontaminated Sea Water system was off-line for pump Maintenance. During this time the pC02 and TSG were secured.

Miscellaneous:
No Major Issues to Report.

Daily Comment Summaries - Personnel Onboard

Sun 14 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

25%

Prime Lines Completed

26%

Preplot Lines	Complete	Incomplete	Pending
47	12	0	0

Percentages Charged	
Prime	25.36% of 3125.50 km (Sail Line)

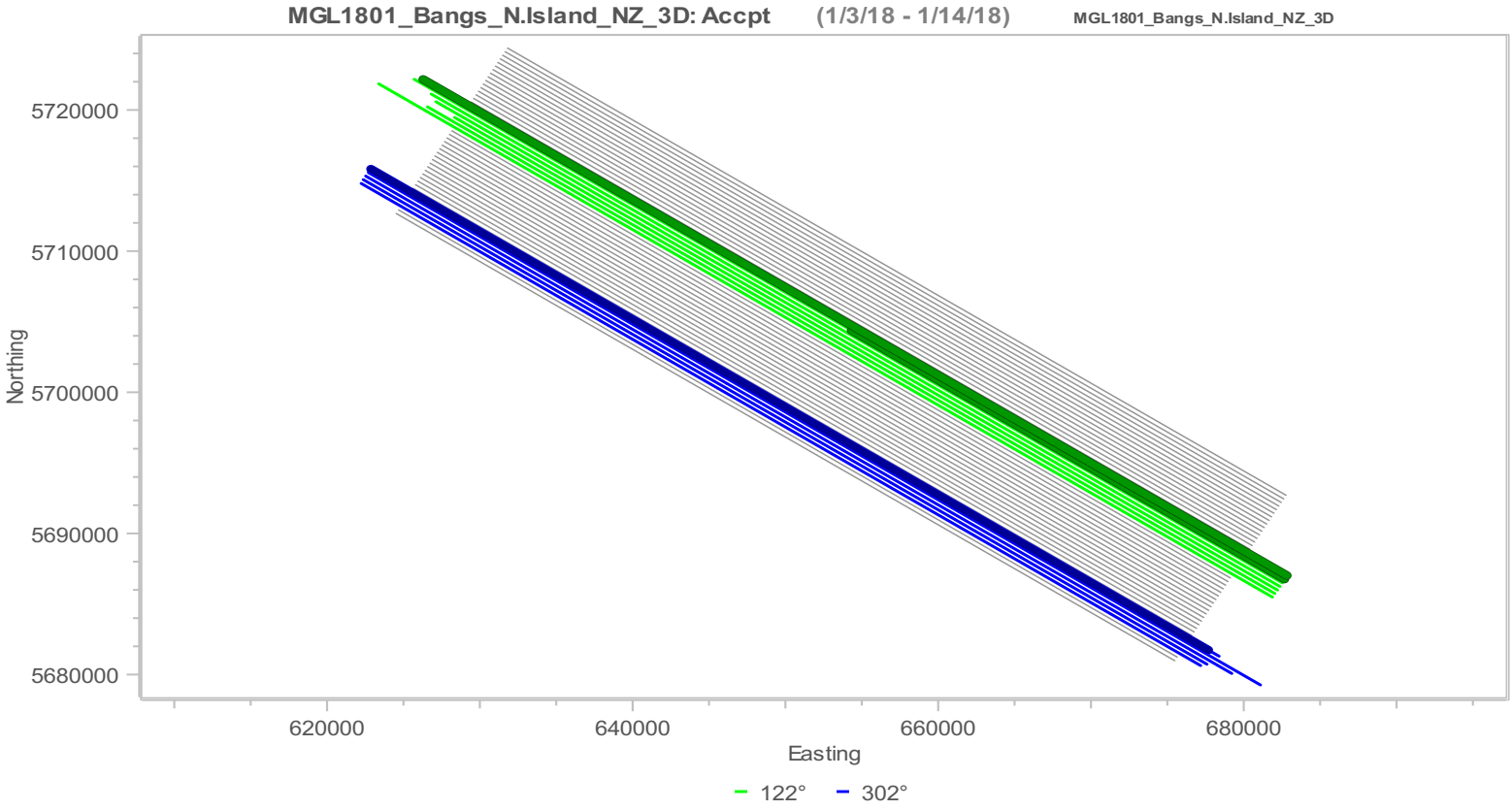
Average Daily Production	
Average Accepted Daily Production	132.08 km
Average Charged Daily Production	132.08 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Sun 14 Jan	Marcus G Langseth	11 - 13	164.52
Total Production:			**164.52**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	99.97	792.50	792.50	792.50
Infill	0.00	0.00	0.00	0.00
Infill, Progressive	64.55	64.55	64.55	64.55
Combined	**164.52**	**857.05**	**857.05**	**857.05**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Mon 15 Jan

The vessel started the day continuing line change to Line 1060, which started at 02:20 UTC and ended at 10:00 UTC. The vessel made a line change to Line 1252, which started at 11:49 UTC and continued until 19:39 UTC. The vessel made another line change to Line 1068 which started at 22:18 UTC and continued through the end of the day.

In between lines 1060 and 1252 Sub-Array #4 was recovered on-board to preform maintenance on the rGPS. In Between Lines 1252 and 1068 Sub-Arrays 1 & 2, along with the Navigation Head Float were recovered to preform maintenance.

Daily Comment Summaries - Plan for Tomorrow

Mon 15 Jan

The Vessel will start the day continuing line 1068 which is expected to completed at ~06:00 UTC. The vessel should also acquire data on lines 1068, 1260, and 1076 before the end of the day.,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Mon 15. Jan 00:00	Mon 15. Jan 02:20	2.333
Nominal Prime line change.				
Production Prime	AC_PP	Mon 15. Jan 02:20	Mon 15. Jan 10:00	7.667
SOL Seq 14 Line:MGL1801M1060 Preplot:1060 FGSP=943 FCSP=943 Hdg=301.9° Prime EOL Seq 14 Line:MGL1801M1060 Preplot:1060 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Mon 15. Jan 10:00	Mon 15. Jan 11:49	1.817
Nominal Prime line change.				
Production Prime	AC_PP	Mon 15. Jan 11:49	Mon 15. Jan 19:39	7.833
SOL Seq 15 Line:MGL1801M1252 Preplot:1252 FGSP=3548 FCSP=3548 Hdg=121.9° Prime EOL Seq 15 Line:MGL1801M1252 Preplot:1252 LGSP=878 LCSP=878 Complete				
Prime Line Change	AC_PLC	Mon 15. Jan 19:39	Mon 15. Jan 22:18	2.650
Nominal Prime line change.				
Production Prime	AC_PP	Mon 15. Jan 22:18	Mon 15. Jan 24:00	1.700
SOL Seq 16 Line:MGL1801M1068 Preplot:1068 FGSP=903 FCSP=903 Hdg=301.9° Prime MSP Seq 16 Line:MGL1801M1068 Preplot:1068 LGSP=1477 LCSP=1477 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

15-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	6.800	28.333
Production Prime	17.200	71.667
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**40.365**
Deployment	48.733	16.921
Mob Ashore	44.833	15.567
Testing	5.533	1.921
Transit to Prospect	17.150	5.955
Acquisition	**149.583**	**51.939**
Infill Line Change	2.617	0.909
Prime Line Change	29.400	10.208
Production Infill	7.617	2.645
Production Prime	109.950	38.177
DownTime	**18.533**	**6.435**
Nav Systems Onboard	18.533	6.435
Chargeable Standby	**3.633**	**1.262**
Weather	3.633	1.262
Total	288.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 15 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report.

Daily Comment Summaries - Personnel Onboard

Mon 15 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

30%

Prime Lines Completed

30%

Preplot Lines	Complete	Incomplete	Pending
47	14	0	0

Percentages Charged	
Prime	30.02% of 3125.50 km (Sail Line)

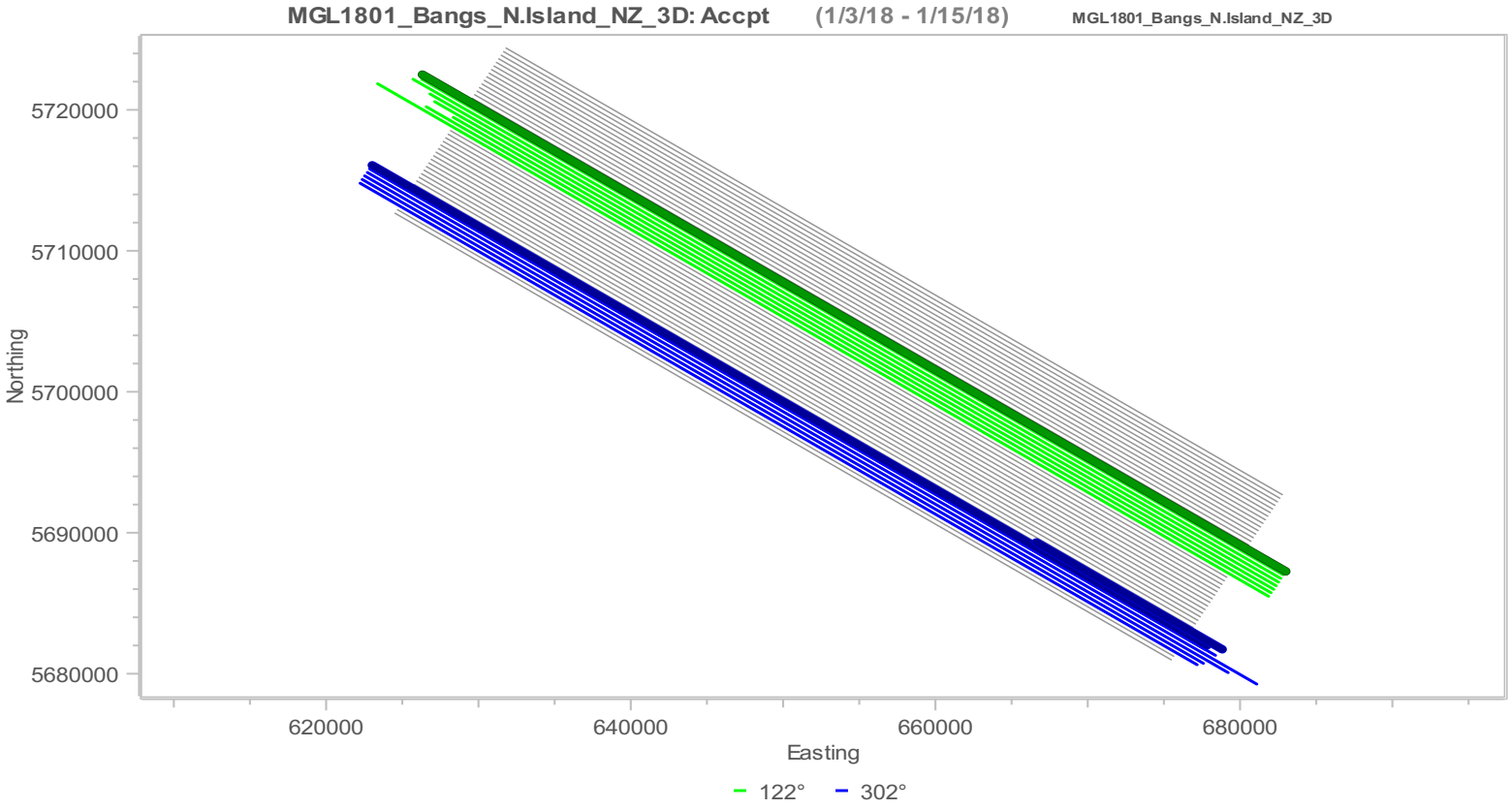
Average Daily Production	
Average Accepted Daily Production	134.02 km
Average Charged Daily Production	134.02 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Mon 15 Jan	Marcus G Langseth	14 - 16	145.62
Total Production:			**145.62**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	145.62	145.62	938.13	938.13
Infill	0.00	0.00	0.00	0.00
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**145.62**	**145.62**	**1002.68**	**1002.68**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Tue 16 Jan

The vessel started the day continuing Line 1068, which ended at 06:09 UTC. The vessel made a line change to Line 1260, which started at 08:13 UTC and continued until 15:47 UTC. The vessel made another line change to Line 1076 which started at 17:52 UTC and continued through the end of the day.

Daily Comment Summaries - Plan for Tomorrow

Tue 16 Jan

The Vessel will start the day continuing line 1076 which is expected to completed at ~02:30 UTC. The vessel should also acquire data on lines 1076, 1268, and 1084 before the end of the day.,

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Tue 16. Jan 00:00	Tue 16. Jan 06:09	6.150
SOL Seq 16 Line:MGL1801M1068 Preplot:1068 FGSP=1478 FCSP=1478 Hdg=301.9° Prime EOL Seq 16 Line:MGL1801M1068 Preplot:1068 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Tue 16. Jan 06:09	Tue 16. Jan 08:13	2.067
Nominal Prime line change.				
Production Prime	AC_PP	Tue 16. Jan 08:13	Tue 16. Jan 15:47	7.567
SOL Seq 17 Line:MGL1801M1260 Preplot:1260 FGSP=3459 FCSP=3459 Hdg=121.9° Prime EOL Seq 17 Line:MGL1801M1260 Preplot:1260 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Tue 16. Jan 15:47	Tue 16. Jan 17:52	2.083
Nominal Prime line change.				
Production Prime	AC_PP	Tue 16. Jan 17:52	Tue 16. Jan 24:00	6.133
SOL Seq 18 Line:MGL1801M1076 Preplot:1076 FGSP=850 FCSP=850 Hdg=301.9° Prime MSP Seq 18 Line:MGL1801M1076 Preplot:1076 LGSP=2922 LCSP=2922 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

16-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	4.150	17.292
Production Prime	19.850	82.708
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**37.260**
Deployment	48.733	15.620
Mob Ashore	44.833	14.370
Testing	5.533	1.774
Transit to Prospect	17.150	5.497

Category	Hours	% Percent
Acquisition	**173.583**	**55.636**
Infill Line Change	2.617	0.839
Prime Line Change	33.550	10.753
Production Infill	7.617	2.441
Production Prime	129.800	41.603
DownTime	**18.533**	**5.940**
Nav Systems Onboard	18.533	5.940
Chargeable Standby	**3.633**	**1.165**
Weather	3.633	1.165
Total	312.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 16 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational. Weather has picked up and the Navigation Headbuoy rGPS is intermittent.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report.

Daily Comment Summaries - Personnel Onboard

Tue 16 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

35%

Prime Lines Completed

34%

Preplot Lines	Complete	Incomplete	Pending
47	16	0	0

Percentages Charged	
Prime	35.37% of 3125.50 km (Sail Line)

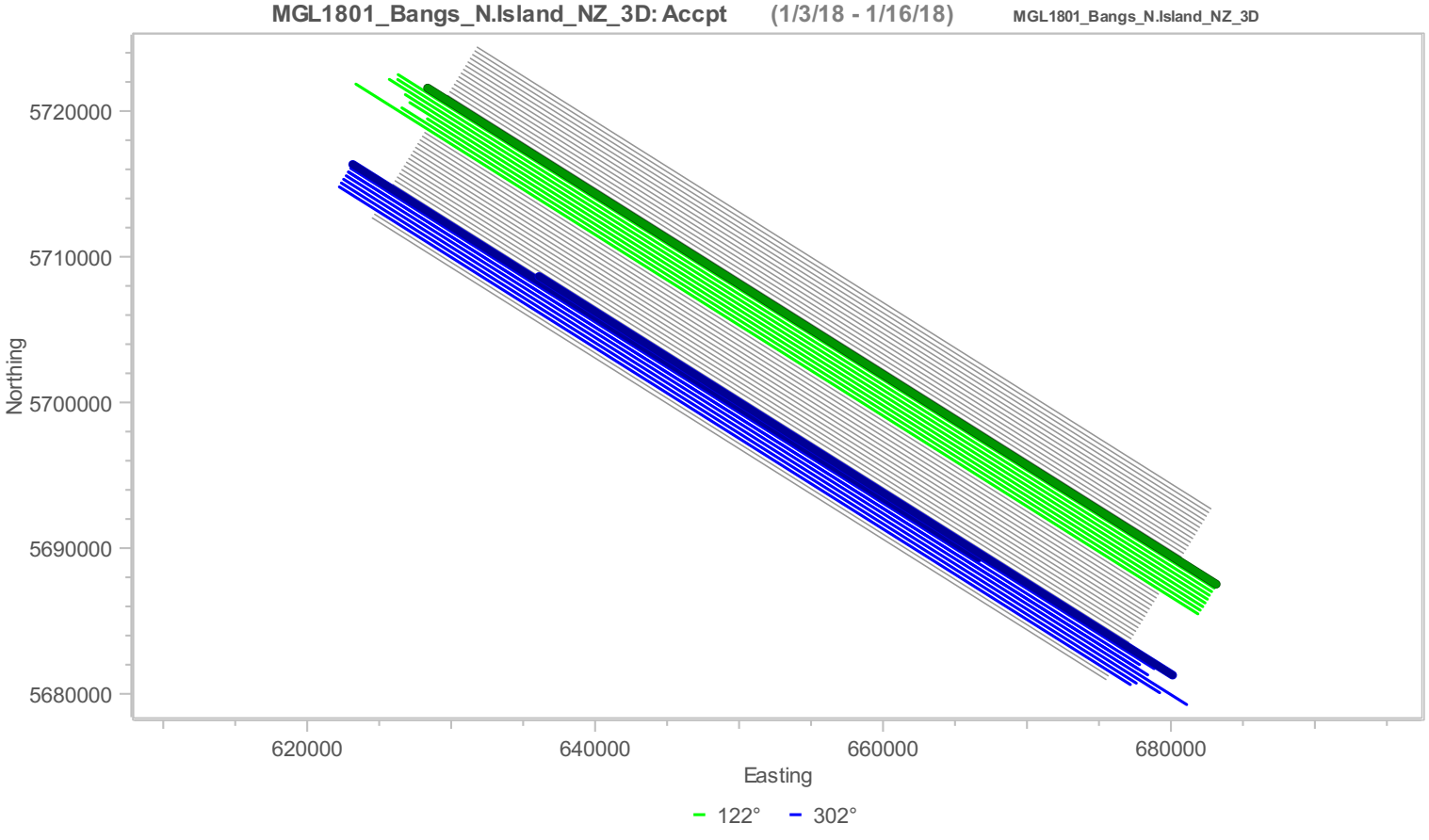
Average Daily Production	
Average Accepted Daily Production	138.20 km
Average Charged Daily Production	138.20 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Tue 16 Jan	Marcus G Langseth	16 - 18	167.50
Total Production:			**167.50**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	167.50	313.13	1105.62	1105.62
Infill	0.00	0.00	0.00	0.00
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**167.50**	**313.13**	**1170.17**	**1170.17**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Wed 17 Jan

The vessel started the day continuing Line 1076, which ended at 01:49 UTC. The vessel made a line change to Line 1268, which started at 04:02 UTC and continued until 0426 UTC, when it was aborted due to weather. The Vessel remained down for weather until 15:40, when will heading back towards the survey area deploying the Seismic Source there was an incident, While redeploying Sub-Array#4 the hose bundle got a loop in the reel that jumped the outboard flange of the winch an wedged itself between the deck and the winch. This caused damage to the bundle were by it had to be replaced. The Operation of changing the hose bundle went on from 15:40 UTC to 23:36 UTC. At which time Sub-Array was re-deployed Tested, while the vessel made a turn to STBD to head back towards the survey area. This continued throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Wed 17 Jan

The Vessel will start the day continuing to re-deploy and tested sub-array 4, while the vessel made a turn to STBD to head back towards the survey area. At ~00:50 UTC all sub-arrays will be re-deployed and the vessel will continue heading towards line, while ramping up the source. It is expected that the vessel will re-start line 1268A - Heading to the SE at ~04:30 UTC and by the end of day it is hoped that we can acquire data on line 1084 as well.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Wed 17. Jan 00:00	Wed 17. Jan 01:49	1.817
SOL Seq 18 Line:MGL1801M1076 Preplot:1076 FGSP=2923 FCSP=2923 Hdg=301.9° Prime EOL Seq 18 Line:MGL1801M1076 Preplot:1076 LGSP=3485 LCSP=3485 Complete				
Prime Line Change	AC_PLC	Wed 17. Jan 01:49	Wed 17. Jan 04:02	2.217
Nominal Prime line change.				
Production Prime	AC_PP	Wed 17. Jan 04:02	Wed 17. Jan 04:26	0.400
SOL Seq 19 Line:MGL1801M1268 Preplot:1268 FGSP=3485 FCSP=3485 Hdg=121.9° Prime EOL Seq 19 Line:MGL1801M1268 Preplot:1268 LGSP=3350 LCSP=3350 Complete				
Weather	SB_WX	Wed 17. Jan 04:26	Wed 17. Jan 15:40	11.233
Chargeable standby due to weather. Source onboard standing by NNW of the survey area				
Source	DT_SC	Wed 17. Jan 15:40	Wed 17. Jan 23:39	7.983
Downtime due to source - While redeploying Sub-Array#4 the hose bundle got a loop in the reel that jumped the outboard flange of the winch an wedged itself between the deck and the reel. The incident was caused by the front cluster getting hung on the corner of the port lab and it going unnoticed for a few sec, which allowed the reel to loop. Quickly after it was notice the cluster came loose and the sub-array slid out cause the bundle to get wedged under the reel.				
Source	DT_SC	Wed 17. Jan 23:39	Wed 17. Jan 24:00	0.350
Downtime due to source. Bundle #4 changed out and testing while making at turn around towards the survey area.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

17-Jan	Hours	% Percent
Acquisition	**4.433**	**18.472**
Prime Line Change	2.217	9.236
Production Prime	2.217	9.236

17-Jan	Hours	% Percent
Chargeable Standby	**11.233**	**46.806**
Weather	11.233	46.806
DownTime	**8.333**	**34.722**
Source	8.333	34.722
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**34.598**
Deployment	48.733	14.504
Mob Ashore	44.833	13.343
Testing	5.533	1.647
Transit to Prospect	17.150	5.104
Acquisition	**178.017**	**52.981**
Infill Line Change	2.617	0.779
Prime Line Change	35.767	10.645
Production Infill	7.617	2.267
Production Prime	132.017	39.291
DownTime	**26.867**	**7.996**
Nav Systems Onboard	18.533	5.516
Source	8.333	2.480
Chargeable Standby	**14.867**	**4.425**
Weather	14.867	4.425
Total	336.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 17 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational. Weather has picked up and the Navigation Headbuoy rGPS is intermittent.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report.

Daily Comment Summaries - Personnel Onboard

Wed 17 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

35%

Prime Lines Completed

36%

Preplot Lines	Complete	Incomplete	Pending
47	17	1	0

Percentages Charged	
Prime	35.48% of 3125.50 km (Sail Line)

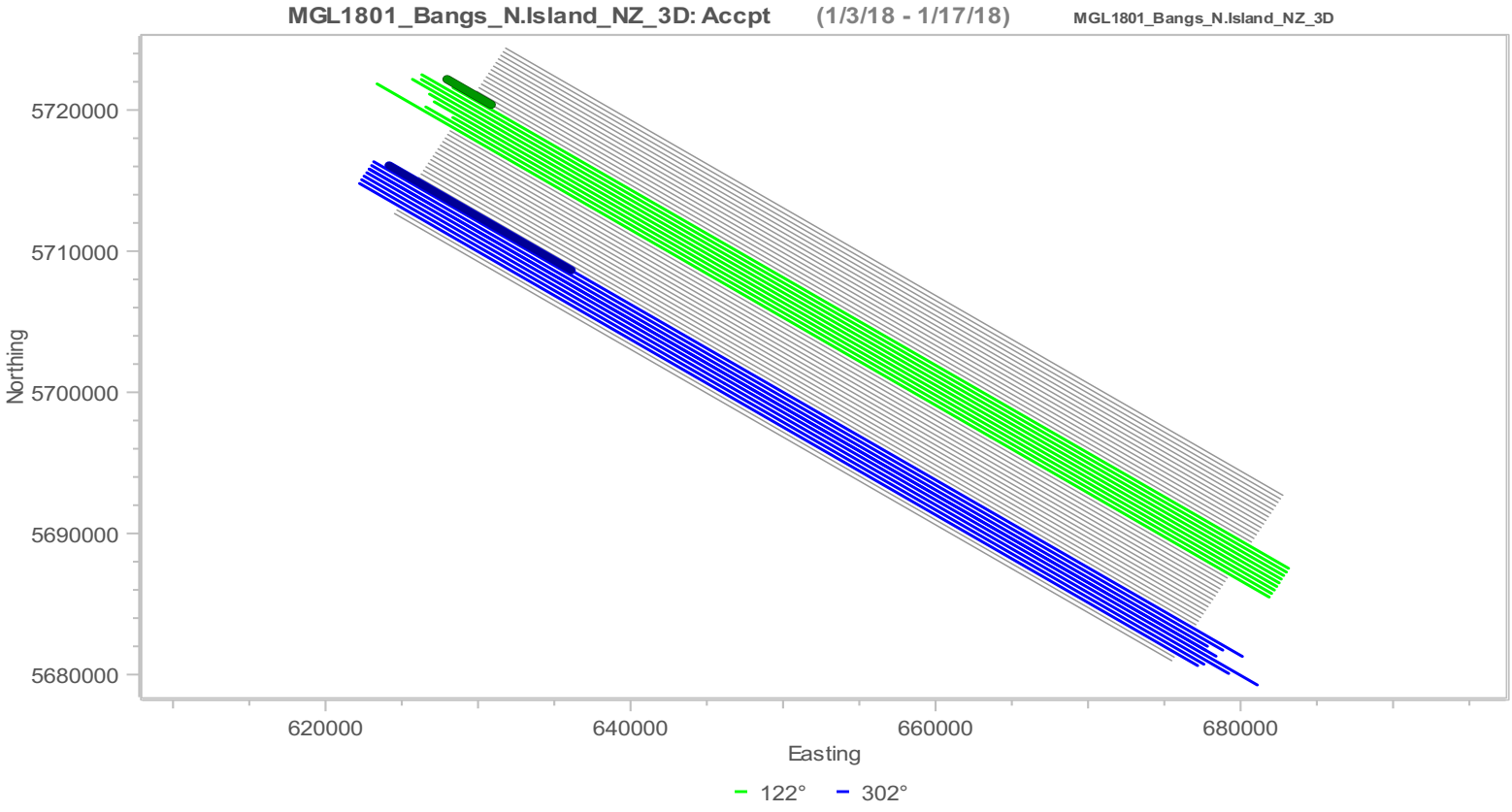
Average Daily Production	
Average Accepted Daily Production	124.79 km
Average Charged Daily Production	123.22 km

Production Day By Day (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Date	Vessel	First - Last Sequence	Production
Wed 17 Jan	Marcus G Langseth	19	3.38
Total Production:			**3.38**

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	3.38	316.50	1109.00	1109.00
Infill	0.00	0.00	0.00	0.00
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**3.38**	**316.50**	**1173.55**	**1173.55**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Thu 18 Jan

The vessel started the day head back towards the survey area. At 04:43 UTC the vessel restarted line 1268 heading to the Southeast. Line 1268 concluded at 12:25 UTC and the vessel made a line change to Line 1084, which started at 14:43 UTC and concluded at 22:10 UTC. The remainder of the day was spent making a line change to line 1276.

Daily Comment Summaries - Plan for Tomorrow

Thu 18 Jan

The Vessel will start the day continuing line change to Line 1276. It is hoped that we can acquire data on line 1276, 1092, and 1284 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Source	DT_SC	Thu 18. Jan 00:00	Thu 18. Jan 00:48	0.800
Downtime due to source. Bundle #4 changed out and testing while making at turn around towards the survey area.				
Source	DT_SC	Thu 18. Jan 00:48	Thu 18. Jan 02:54	2.100
Downtime due to source. Deploying PAM and Ramping up Source				
Source	DT_SC	Thu 18. Jan 02:54	Thu 18. Jan 04:53	1.983
Downtime due to source. - Source Ramped up and heading towards line.				
Production Prime	AC_PP	Thu 18. Jan 04:53	Thu 18. Jan 04:54	0.017
SOL Seq 20 Line:MGL1801M1268A Preplot:1268 FGSP=3494 FCSP=3494 Hdg=121.9° Prime EOL Seq 20 Line:MGL1801M1268A Preplot:1268 LGSP=3486 LCSP=3486 Complete				
Production Infill	AC_PI	Thu 18. Jan 04:54	Thu 18. Jan 05:17	0.383
SOL Seq 20 Line:MGL1801M1268A Preplot:1268 FGSP=3485 FCSP=3485 Hdg=121.9° Infill EOL Seq 20 Line:MGL1801M1268A Preplot:1268 LGSP=3350 LCSP=3350 Complete				
Production Prime	AC_PP	Thu 18. Jan 05:17	Thu 18. Jan 12:25	7.133
SOL Seq 20 Line:MGL1801M1268A Preplot:1268 FGSP=3349 FCSP=3349 Hdg=121.9° Prime EOL Seq 20 Line:MGL1801M1268A Preplot:1268 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Thu 18. Jan 12:25	Thu 18. Jan 14:33	2.133
Nominal Prime line change.				
Production Prime	AC_PP	Thu 18. Jan 14:33	Thu 18. Jan 22:10	7.617
SOL Seq 21 Line:MGL1801M1084 Preplot:1084 FGSP=885 FCSP=885 Hdg=301.9° Prime EOL Seq 21 Line:MGL1801M1084 Preplot:1084 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Thu 18. Jan 22:10	Thu 18. Jan 24:00	1.833
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

18-Jan	Hours	% Percent
Acquisition	**19.117**	**79.653**
Prime Line Change	3.967	16.528
Production Infill	0.383	1.597
Production Prime	14.767	61.528
DownTime	**4.883**	**20.347**
Source	4.883	20.347
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**32.292**
Deployment	48.733	13.537
Mob Ashore	44.833	12.454
Testing	5.533	1.537
Transit to Prospect	17.150	4.764
Acquisition	**197.133**	**54.759**
Infill Line Change	2.617	0.727
Prime Line Change	39.733	11.037
Production Infill	8.000	2.222
Production Prime	146.783	40.773
DownTime	**31.750**	**8.819**
Nav Systems Onboard	18.533	5.148
Source	13.217	3.671
Chargeable Standby	**14.867**	**4.130**
Weather	14.867	4.130
Total	360.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 18 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational. Navigation head buoy was not re-deployed after the weather downtime, due to a failure in it homemade jumper. It was proved the concept work and we will work on ordering the proper parts to make it more robust.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
Hose bundle #4 was changed out yesterday due to damage it received from getting trapped under the reel. The New Hose Bundle installed seems to be working well and is full operational.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
Yesterday, the PAM streamer had it reel end termination separated from the Tow cable. While down for weather the PSO's were trouble shooting hydrophone issue in the Array. While they had it plugged in for testing the reel got turned, which separated the reel end termination from the tow cable. The Tow Cable was changed out with the spare and the PAM is current operational.

Daily Comment Summaries - Personnel Onboard

Thu 18 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

40%

Percentages Charged	
Prime	39.58% of 3125.50 km (Sail Line)

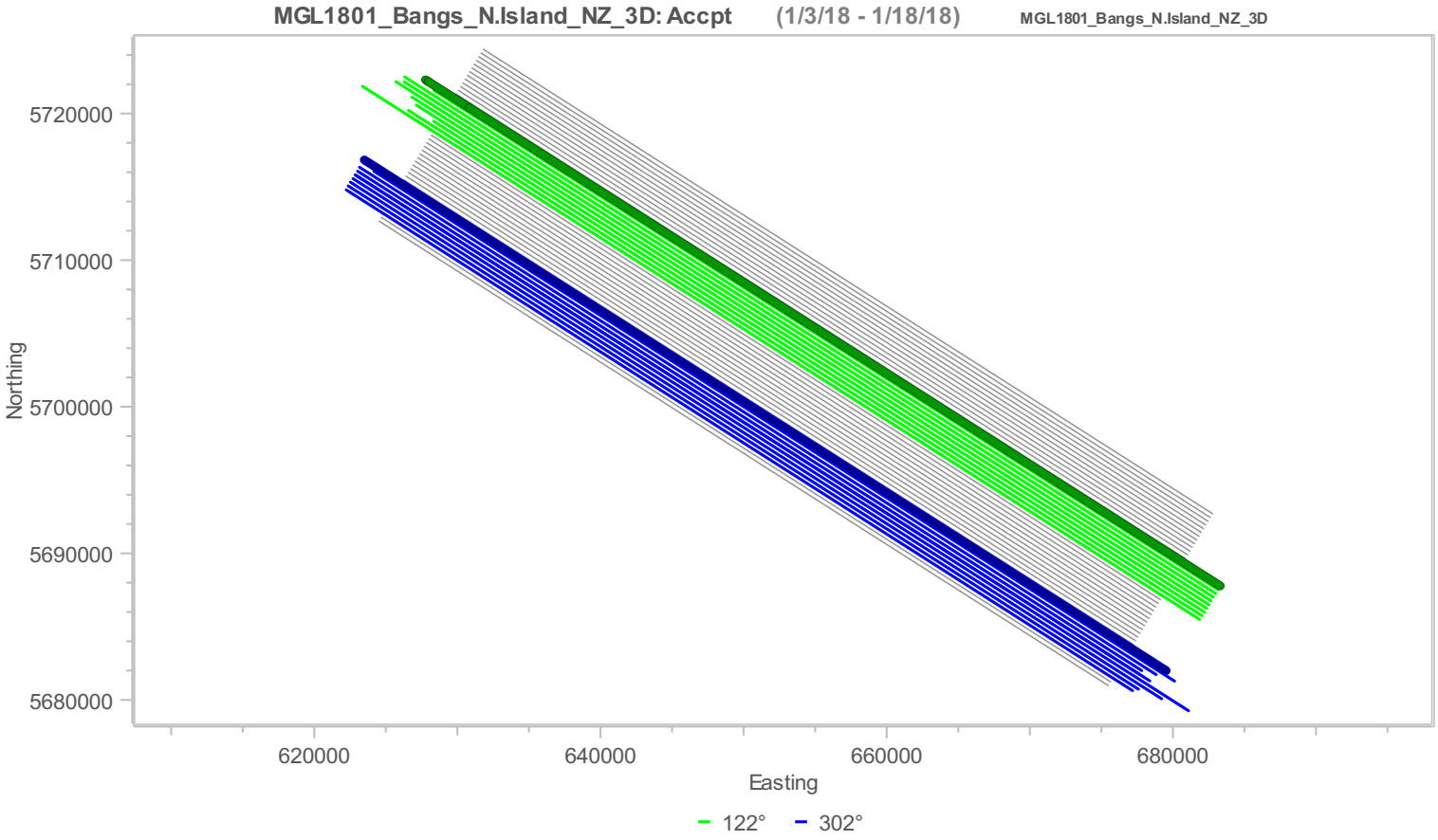
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
20	M1268A	121.9	3494	3486	Prime	0.20	6.479	Complete	Complete
20	M1268A	121.9	3485	3350	Infill	3.38	4.754	Complete	Complete
20	M1268A	121.9	3349	879	Prime	61.75	4.674	Complete	Complete
21	M1084	301.9	885	3524	Prime	65.98	4.677	Complete	Complete
Total						**131.30**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	127.93	444.43	1236.92	1236.92
Infill	3.38	3.38	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**131.30**	**447.80**	**1304.85**	**1304.85**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Fri 19 Jan

The vessel started the day on line change to line 1276. Line 1276 started at 00:22 and concluded at 07:44 UTC. The vessel made a line change to Line 1092, which started at 10:03 UTC and concluded at 17:38 UTC. The vessel made a another line change to Line 1092, which started at 19:43 UTC and continued through the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Fri 19 Jan

The Vessel will start the day continuing line change to Line 1284. It is hoped that we can acquire data on line 1284, 1100, and 1292 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Fri 19. Jan 00:00	Fri 19. Jan 00:22	0.367
Nominal Prime line change.				
Production Prime	AC_PP	Fri 19. Jan 00:22	Fri 19. Jan 07:44	7.367
SOL Seq 22 Line:MGL1801M1276 Preplot:1276 FGSP=3453 FCSP=3453 Hdg=121.9° Prime EOL Seq 22 Line:MGL1801M1276 Preplot:1276 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Fri 19. Jan 07:44	Fri 19. Jan 10:03	2.317
Nominal Prime line change.				
Production Prime	AC_PP	Fri 19. Jan 10:03	Fri 19. Jan 17:38	7.583
SOL Seq 23 Line:MGL1801M1092 Preplot:1092 FGSP=936 FCSP=936 Hdg=301.9° Prime EOL Seq 23 Line:MGL1801M1092 Preplot:1092 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Fri 19. Jan 17:38	Fri 19. Jan 19:43	2.083
Nominal Prime line change.				
Production Prime	AC_PP	Fri 19. Jan 19:43	Fri 19. Jan 24:00	4.283
SOL Seq 24 Line:MGL1801M1284 Preplot:1284 FGSP=3486 FCSP=3486 Hdg=121.9° Prime MSP Seq 24 Line:MGL1801M1284 Preplot:1284 LGSP=1990 LCSP=1990 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

19-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	4.767	19.861
Production Prime	19.233	80.139
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**30.273**
Deployment	48.733	12.691
Mob Ashore	44.833	11.675
Testing	5.533	1.441
Transit to Prospect	17.150	4.466
Acquisition	**221.133**	**57.587**
Infill Line Change	2.617	0.681
Prime Line Change	44.500	11.589
Production Infill	8.000	2.083
Production Prime	166.017	43.234
DownTime	**31.750**	**8.268**
Nav Systems Onboard	18.533	4.826
Source	13.217	3.442
Chargeable Standby	**14.867**	**3.872**
Weather	14.867	3.872
Total	384.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 19 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 19 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

45%

Percentages Charged	
Prime	44.90% of 3125.50 km (Sail Line)

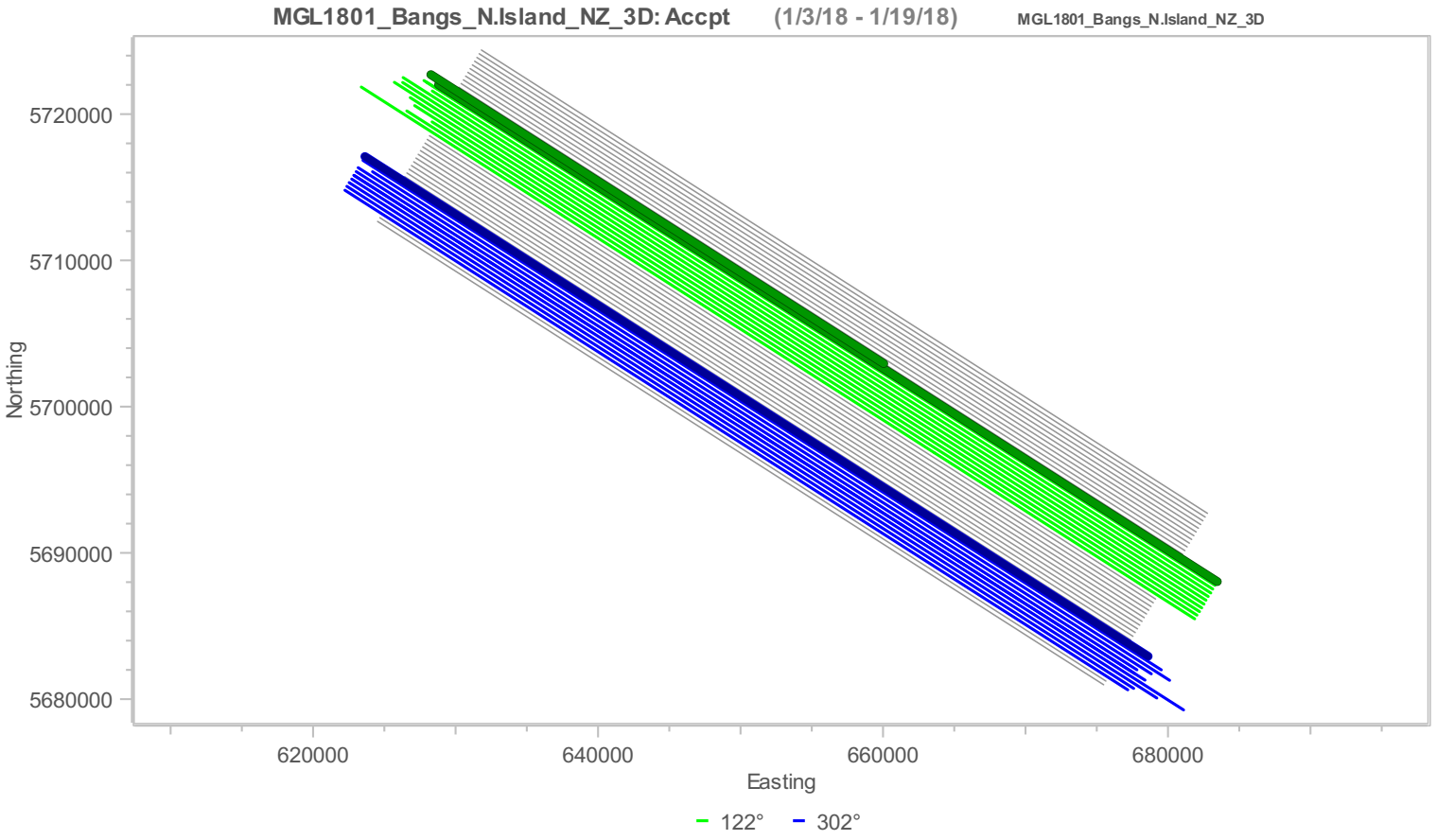
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
22	M1276	121.9	3453	879	Prime	64.35	4.717	Complete	Complete
23	M1092	301.9	936	3525	Prime	64.73	4.609	Complete	Complete
24	M1284	121.9	3486	1990	Prime	37.40	4.715	Part	Midnight
Total						**166.48**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	166.48	610.90	1403.40	1403.40
Infill	0.00	3.38	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**166.48**	**614.28**	**1471.32**	**1471.32**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sat 20 Jan

The vessel started the day on line change to line 1284 which concluded at 03:08 UTC. The vessel made a line change to Line 1100, which started at 05:26 UTC and concluded at 13:06 UTC. The vessel made a another line change to Line 1292, which started at 15:03 UTC and concluded at 22:45 UTC. The remainder of the day was spent line changing to Line 1108. During the Line Change to Line 1108, Sub-Arrays 1 (Comm Issues) and 3 (Air Leak) were recovered for maintenance.

Daily Comment Summaries - Plan for Tomorrow

Sat 20 Jan

The Vessel will start the day continuing line change to Line 1108. It is hoped that we can acquire data on line 1108, 1300, and 1116 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sat 20. Jan 00:00	Sat 20. Jan 03:08	3.133
SOL Seq 24 Line:MGL1801M1284 Preplot:1284 FGSP=1989 FCSP=1989 Hdg=121.9° Prime EOL Seq 24 Line:MGL1801M1284 Preplot:1284 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sat 20. Jan 03:08	Sat 20. Jan 05:26	2.300
Nominal Prime line change.				
Production Prime	AC_PP	Sat 20. Jan 05:26	Sat 20. Jan 13:06	7.667
SOL Seq 25 Line:MGL1801M1100 Preplot:1100 FGSP=924 FCSP=924 Hdg=301.9° Prime EOL Seq 25 Line:MGL1801M1100 Preplot:1100 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sat 20. Jan 13:06	Sat 20. Jan 15:03	1.950
Nominal Prime line change.				
Production Prime	AC_PP	Sat 20. Jan 15:03	Sat 20. Jan 22:45	7.700
SOL Seq 26 Line:MGL1801M1292 Preplot:1292 FGSP=3532 FCSP=3532 Hdg=121.9° Prime EOL Seq 26 Line:MGL1801M1292 Preplot:1292 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sat 20. Jan 22:45	Sat 20. Jan 24:00	1.250
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

20-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	5.500	22.917
Production Prime	18.500	77.083
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**28.493**
Deployment	48.733	11.944
Mob Ashore	44.833	10.989
Testing	5.533	1.356
Transit to Prospect	17.150	4.203
Acquisition	**245.133**	**60.082**
Infill Line Change	2.617	0.641
Prime Line Change	50.000	12.255
Production Infill	8.000	1.961
Production Prime	184.517	45.225
DownTime	**31.750**	**7.782**
Nav Systems Onboard	18.533	4.542
Source	13.217	3.239
Chargeable Standby	**14.867**	**3.644**
Weather	14.867	3.644
Total	408.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 20 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
Leakage on S1G7 started showing itself more today and during the maintenance the GCM was replaced. The AirLeak on Sub-Array #3 was from the airline feeding S3G1 inside the umbilical.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 20 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

50%

Percentages Charged	
Prime	49.99% of 3125.50 km (Sail Line)

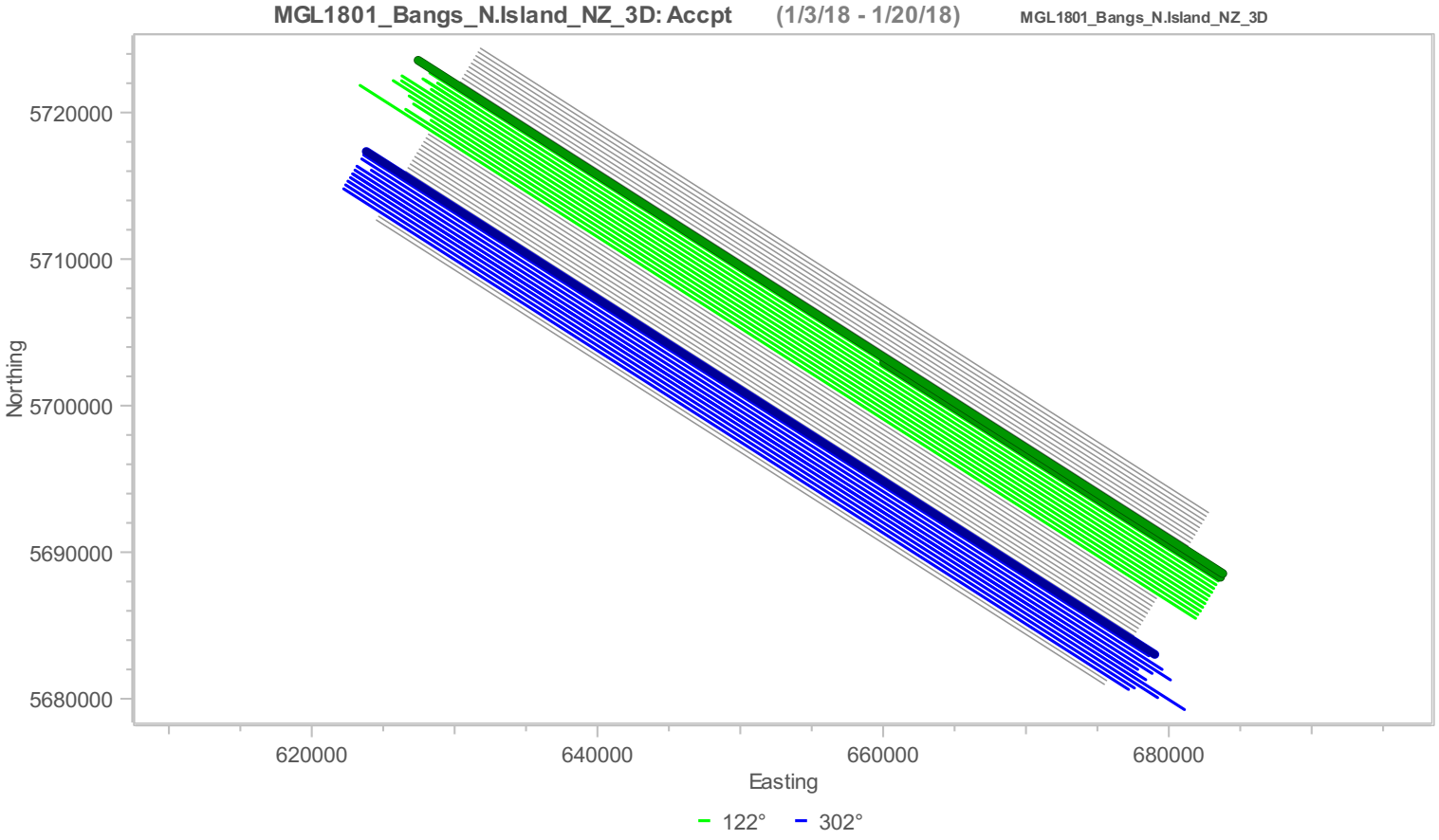
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
24	M1284	121.9	1989	879	Prime	27.78	4.786	Complete	Complete
25	M1100	301.9	924	3524	Prime	65.00	4.578	Complete	Complete
26	M1292	121.9	3532	879	Prime	66.33	4.651	Complete	Complete
Total						**159.10**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	159.10	770.00	1562.50	1562.50
Infill	0.00	3.38	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**159.10**	**773.38**	**1630.42**	**1630.42**



Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sun 21 Jan

The vessel started the day on line change to line 1108 which started at 02:48 UTC and concluded at 09:49 UTC. The vessel made a line change to Line 1300, which started at 12:06 UTC and concluded at 19:26 UTC. The vessel made a another line change to Line 1116, which started at 21:54 UTC and continued through the remainder of the day. During the Line Change to Line 1300, Sub-Arrays 3 we recovered for inspection. During the line change to Line 1116 Sub-Array 1 was recovered for further trouble shooting of comm issues at S1G8's position.

Daily Comment Summaries - Plan for Tomorrow

Sun 21 Jan

The Vessel will start the day continuing line change to Line 1116. It is hoped that we can acquire data on line 1116, 1308, and 1012 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Sun 21. Jan 00:00	Sun 21. Jan 01:15	1.250
Nominal Prime line change.				
Prime Extended L/C	AC_PXL	Sun 21. Jan 01:15	Sun 21. Jan 02:08	0.883
Extended Prime line change for Source Maintenance				
Production Prime	AC_PP	Sun 21. Jan 02:08	Sun 21. Jan 09:49	7.683
SOL Seq 27 Line:MGL1801M1108 Preplot:1108 FGSP=923 FCSP=923 Hdg=301.9° Prime EOL Seq 27 Line:MGL1801M1108 Preplot:1108 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sun 21. Jan 09:49	Sun 21. Jan 12:06	2.283
Nominal Prime line change.				
Production Prime	AC_PP	Sun 21. Jan 12:06	Sun 21. Jan 19:26	7.333
SOL Seq 28 Line:MGL1801M1300 Preplot:1300 FGSP=3463 FCSP=3463 Hdg=121.9° Prime EOL Seq 28 Line:MGL1801M1300 Preplot:1300 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sun 21. Jan 19:26	Sun 21. Jan 21:54	2.467
Nominal Prime line change.				
Production Prime	AC_PP	Sun 21. Jan 21:54	Sun 21. Jan 24:00	2.100
SOL Seq 29 Line:MGL1801M1116 Preplot:1116 FGSP=886 FCSP=886 Hdg=301.9° Prime MSP Seq 29 Line:MGL1801M1116 Preplot:1116 LGSP=1548 LCSP=1548 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

21-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Extended L/C	0.883	3.681
Prime Line Change	6.000	25.000
Production Prime	17.117	71.319
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**26.910**
Deployment	48.733	11.281
Mob Ashore	44.833	10.378
Testing	5.533	1.281
Transit to Prospect	17.150	3.970
Acquisition	**269.133**	**62.299**
Infill Line Change	2.617	0.606
Prime Extended L/C	0.883	0.204
Prime Line Change	56.000	12.963
Production Infill	8.000	1.852
Production Prime	201.633	46.674
DownTime	**31.750**	**7.350**
Nav Systems Onboard	18.533	4.290
Source	13.217	3.059
Chargeable Standby	**14.867**	**3.441**
Weather	14.867	3.441
Total	432.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

55%

Percentages Charged	
Prime	54.67% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

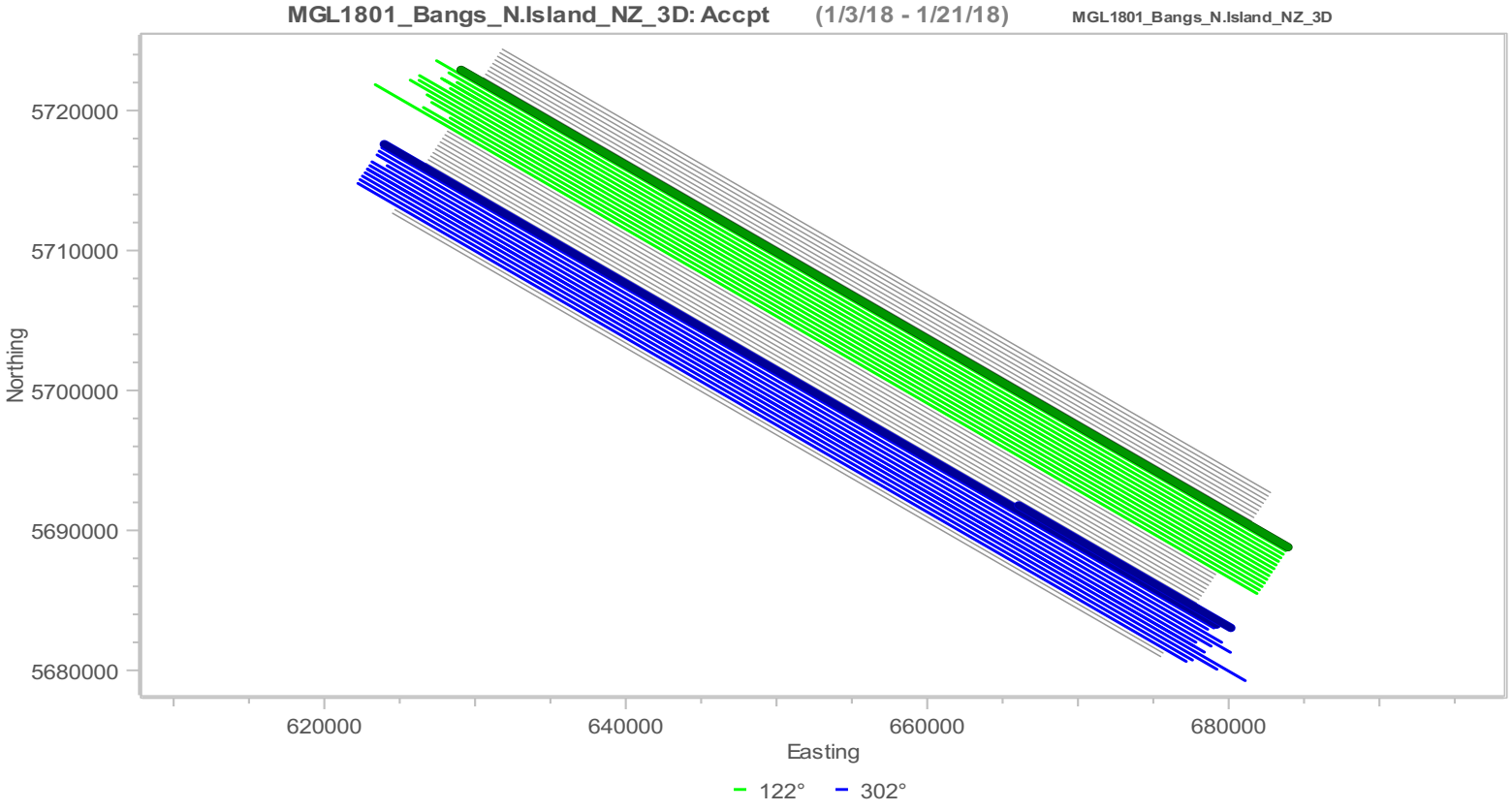
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
27	M1108	301.9	923	3524	Prime	65.03	4.570	Complete	Complete
28	M1300	121.9	3463	879	Prime	64.60	4.757	Complete	Complete
29	M1116	301.9	886	1548	Prime	16.55	4.255	Part	Midnight
Total						**146.18**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	146.18	916.18	1708.67	1708.67
Infill	0.00	3.38	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**146.18**	**919.55**	**1776.60**	**1776.60**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 21 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
SubArray #3 was recovered to do a visual inspection. Sub-Array #1 was recovered to continue trouble shooting of Comm issues with S1G8. It was found that there was a loose connector on the GCM for Element #8. This was corrected and comm issues seem to be better for the entire Sub-array.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 21 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Mon 22 Jan

The vessel started the day on line 1116 which concluded at 05:43 UTC. The vessel made a line change to Line 1308, which started at 07:58 UTC and concluded at 15:21 UTC. The vessel made a another line change to Line 1012, which started at 18:30 UTC and continued through the remainder of the day. During the Line Change to Line 1012, Sub-Arrays 1 we recovered ffor further trouble shooting of comm issues and Sub-Array #2 was recovered for maintenance and air leak on S2G1.

Daily Comment Summaries - Plan for Tomorrow

Mon 22 Jan

The Vessel will start the day continuing line change to Line 1012. It is hoped that we can acquire data on line 1012, 1188, and 1004 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Mon 22. Jan 00:00	Mon 22. Jan 05:43	5.717
SOL Seq 29 Line:MGL1801M1116 Preplot:1116 FGSP=1549 FCSP=1549 Hdg=301.9° Prime EOL Seq 29 Line:MGL1801M1116 Preplot:1116 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Mon 22. Jan 05:43	Mon 22. Jan 07:58	2.250
Nominal Prime line change.				
Production Prime	AC_PP	Mon 22. Jan 07:58	Mon 22. Jan 15:21	7.383
SOL Seq 30 Line:MGL1801M1308 Preplot:1308 FGSP=3462 FCSP=3462 Hdg=121.9° Prime EOL Seq 30 Line:MGL1801M1308 Preplot:1308 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Mon 22. Jan 15:21	Mon 22. Jan 17:51	2.500
Nominal Prime line change.				
Prime Extended L/C	AC_PXL	Mon 22. Jan 17:51	Mon 22. Jan 18:30	0.650
Extended Prime line change. - Line Change Extended due to line position and source work.				
Production Prime	AC_PP	Mon 22. Jan 18:30	Mon 22. Jan 24:00	5.500
SOL Seq 31 Line:MGL1801M1012 Preplot:1012 FGSP=871 FCSP=871 Hdg=301.9° Prime MSP Seq 31 Line:MGL1801M1012 Preplot:1012 LGSP=2796 LCSP=2796 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

22-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Extended L/C	0.650	2.708
Prime Line Change	4.750	19.792
Production Prime	18.600	77.500
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project [1] (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**25.493**
Deployment	48.733	10.687
Mob Ashore	44.833	9.832
Testing	5.533	1.213
Transit to Prospect	17.150	3.761
Acquisition	**293.133**	**64.284**
Infill Line Change	2.617	0.574
Prime Extended L/C	1.533	0.336
Prime Line Change	60.750	13.322
Production Infill	8.000	1.754
Production Prime	220.233	48.297
DownTime	**31.750**	**6.963**
Nav Systems Onboard	18.533	4.064
Source	13.217	2.898
Chargeable Standby	**14.867**	**3.260**
Weather	14.867	3.260
Total	456.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

60%

Percentages Charged	
Prime	59.86% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

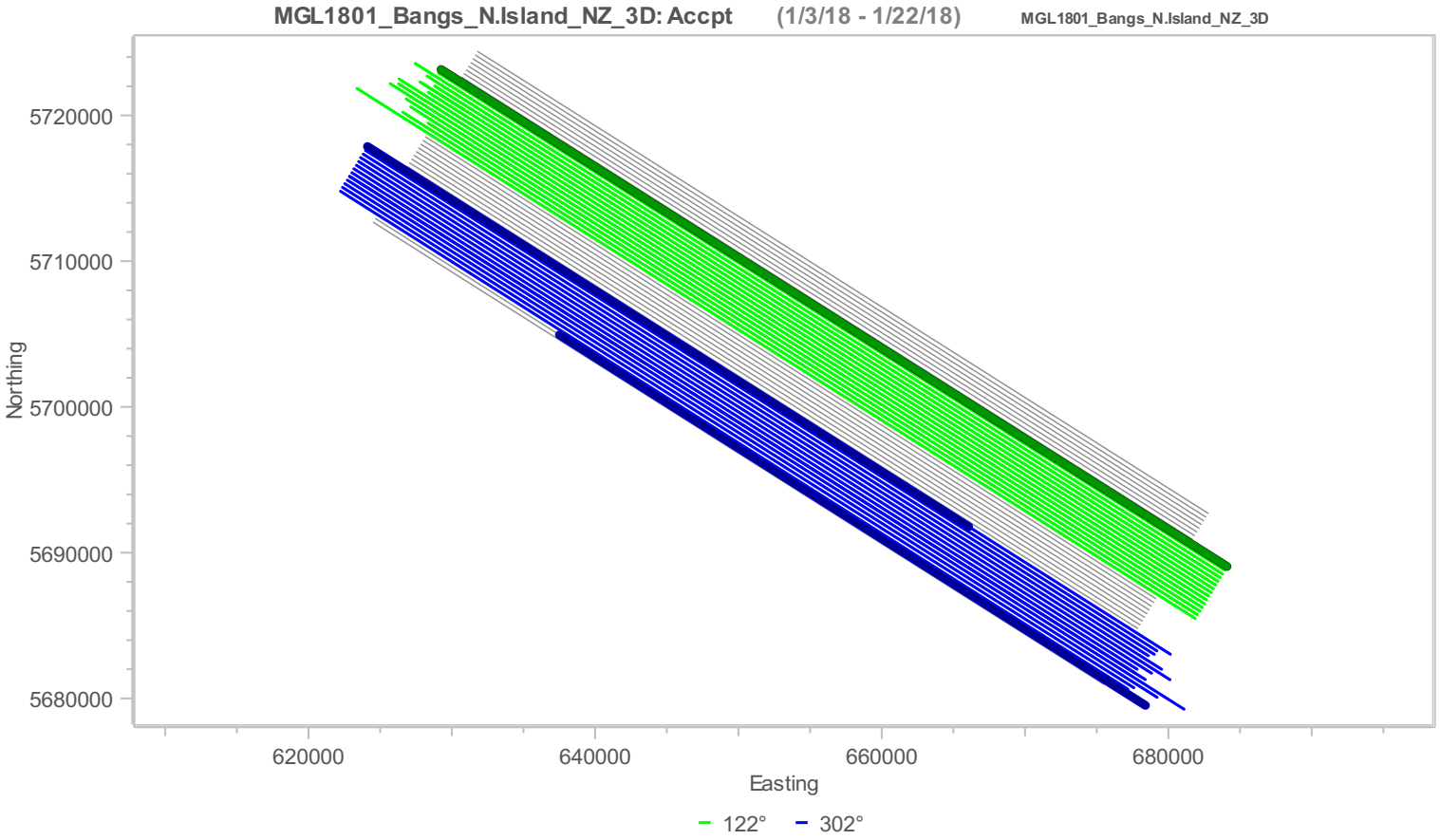
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
29	M1116	301.9	1549	3525	Prime	49.43	4.668	Complete	Complete
30	M1308	121.9	3462	879	Prime	64.58	4.722	Complete	Complete
31	M1012	301.9	871	2796	Prime	48.12	4.725	Part	Midnight
Total						**162.12**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	162.12	162.12	1870.80	1870.80
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**162.12**	**162.12**	**1938.72**	**1938.72**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 22 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB#3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
Sub-Array #1 was recovered to continue trouble shooting of Comm issues. Sub-Array #2 was recovered for an Air leak on S2G1.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 22 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Tue 23 Jan

The vessel started the day on line 1012 which concluded at 02:12 UTC. The vessel made a line change to Line 1188, which started at 04:19 UTC and concluded at 11:47 UTC. The vessel made a another line change to Line 1004, which started at 13:46 UTC and concluded at 21:57 UTC. The vessel began a line change to Line 1316, and continued in this mode throughout the remainder of the day.

During the Line Change to Line 1188, - Sub-Arrays 1 we recovered for further trouble shooting of comm issues. GCM in Position 9&10 was replaced and Comm issue had been resolved.

The Science Workboat was deployed from 20:00 UTC to 21:41 UTC to completed a Visual/Video Inspection of all the towed equipment above and below the water. Additional during the deployment the Workboat replace the strobe lights on Tailbuoy #1 and #4.

Daily Comment Summaries - Plan for Tomorrow

Tue 23 Jan

The Vessel will start the day continuing line change to Line 1316. It is hoped that we can acquire data on line 1316, 1124, and 1324 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Tue 23. Jan 00:00	Tue 23. Jan 02:12	2.200
SOL Seq 31 Line:MGL1801M1012 Preplot:1012 FGSP=2797 FCSP=2797 Hdg=301.9° Prime EOL Seq 31 Line:MGL1801M1012 Preplot:1012 LGSP=3525 LCSP=3401 Complete				
Prime Line Change	AC_PLC	Tue 23. Jan 02:12	Tue 23. Jan 04:19	2.117
Nominal Prime line change.				
Production Prime	AC_PP	Tue 23. Jan 04:19	Tue 23. Jan 11:47	7.467
SOL Seq 32 Line:MGL1801M1188 Preplot:1188 FGSP=3474 FCSP=3474 Hdg=121.9° Prime EOL Seq 32 Line:MGL1801M1188 Preplot:1188 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Tue 23. Jan 11:47	Tue 23. Jan 13:46	1.983
Nominal Prime line change.				
Production Prime	AC_PP	Tue 23. Jan 13:46	Tue 23. Jan 21:57	8.183
SOL Seq 33 Line:MGL1801M1004 Preplot:1004 FGSP=799 FCSP=799 Hdg=301.9° Prime EOL Seq 33 Line:MGL1801M1004 Preplot:1004 LGSP=3524 LCSP=3524 Complete Workboat Deployed to do video/visual inspection of towed array.				
Prime Line Change	AC_PLC	Tue 23. Jan 21:57	Tue 23. Jan 24:00	2.050
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

23-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	6.150	25.625
Production Prime	17.850	74.375
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**24.219**
Deployment	48.733	10.153
Mob Ashore	44.833	9.340
Testing	5.533	1.153
Transit to Prospect	17.150	3.573
Acquisition	**317.133**	**66.069**
Infill Line Change	2.617	0.545
Prime Extended L/C	1.533	0.319
Prime Line Change	66.900	13.938
Production Infill	8.000	1.667
Production Prime	238.083	49.601
DownTime	**31.750**	**6.615**
Nav Systems Onboard	18.533	3.861
Source	13.217	2.753
Chargeable Standby	**14.867**	**3.097**
Weather	14.867	3.097
Total	480.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

65%

Percentages Charged	
Prime	65.06% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300

MGL1801_Bangs_N.Island_NZ_3D					
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

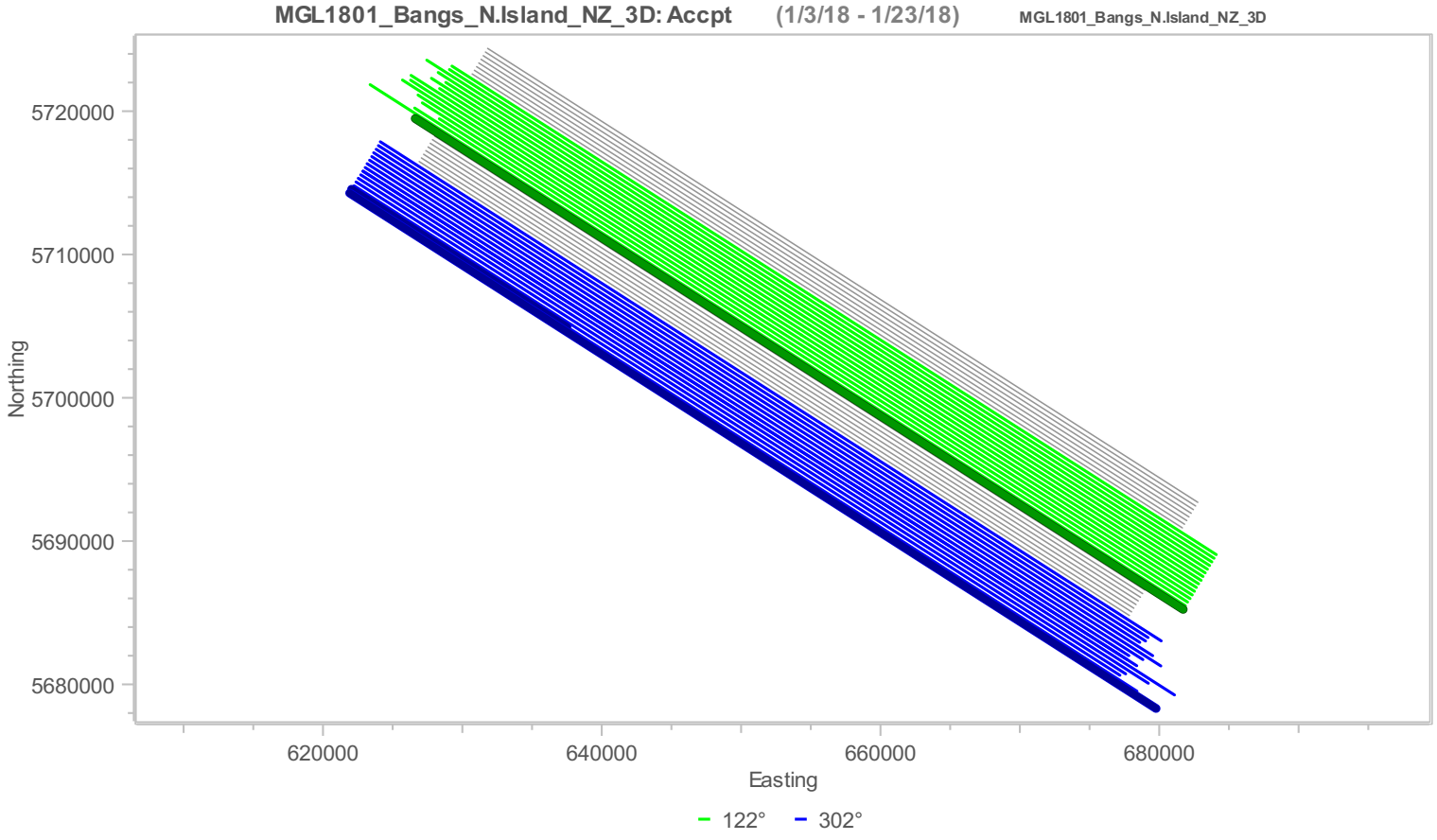
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
31	M1012	301.9	2797	3525	Prime	18.23	4.473	Complete	Complete
32	M1188	121.9	3474	879	Prime	64.88	4.691	Complete	Complete
33	M1004	301.9	799	3524	Prime	68.12	4.495	Complete	Complete
Total						**151.22**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	151.22	313.35	2033.50	2033.50
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**151.22**	**313.35**	**2101.42**	**2101.42**



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 23 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
Sub-Array #1 was recovered to continue trouble shooting of Comm issues. GCM at Position 9&10 was replaced and has seem to correct the comm issues.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 23 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Wed 24 Jan

The vessel started the day on Line Change to Line 1313 which started at 00:45 UTC and concluded at 08:05 UTC. The vessel made a line change to Line 1124, which started at 10:41 UTC and concluded at 18:17 UTC. The vessel made another line change to Line 1324, which started at 20:43 UTC and continuedthroughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Wed 24 Jan

The Vessel will start the day continuing line 1324. It is hoped that we can acquire data on line 1324, 1132, and 1332 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Wed 24. Jan 00:00	Wed 24. Jan 00:27	0.450
Nominal Prime line change.				
Prime Extended L/C	AC_PXL	Wed 24. Jan 00:27	Wed 24. Jan 00:45	0.300
Extended Prime line change. Line Change extended due to line position				
Production Prime	AC_PP	Wed 24. Jan 00:45	Wed 24. Jan 08:05	7.333
SOL Seq 34 Line:MGL1801M1316 Preplot:1316 FGSP=3410 FCSP=3410 Hdg=121.9° Prime EOL Seq 34 Line:MGL1801M1316 Preplot:1316 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Wed 24. Jan 08:05	Wed 24. Jan 10:41	2.600
Nominal Prime line change.				
Production Prime	AC_PP	Wed 24. Jan 10:41	Wed 24. Jan 18:17	7.600
SOL Seq 35 Line:MGL1801M1124 Preplot:1124 FGSP=989 FCSP=989 Hdg=301.9° Prime EOL Seq 35 Line:MGL1801M1124 Preplot:1124 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Wed 24. Jan 18:17	Wed 24. Jan 20:43	2.433
Nominal Prime line change.				
Production Prime	AC_PP	Wed 24. Jan 20:43	Wed 24. Jan 24:00	3.283
SOL Seq 36 Line:MGL1801M1324 Preplot:1324 FGSP=3413 FCSP=3413 Hdg=121.9° Prime MSP Seq 36 Line:MGL1801M1324 Preplot:1324 LGSP=2282 LCSP=2282 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

24-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Extended L/C	0.300	1.250
Prime Line Change	5.483	22.847
Production Prime	18.217	75.903
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**23.065**
Deployment	48.733	9.669
Mob Ashore	44.833	8.896
Testing	5.533	1.098
Transit to Prospect	17.150	3.403
Acquisition	**341.133**	**67.685**
Infill Line Change	2.617	0.519
Prime Extended L/C	1.833	0.364
Prime Line Change	72.383	14.362
Production Infill	8.000	1.587
Production Prime	256.300	50.853
DownTime	**31.750**	**6.300**
Nav Systems Onboard	18.533	3.677
Source	13.217	2.622
Chargeable Standby	**14.867**	**2.950**
Weather	14.867	2.950
Total	504.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

70%

Percentages Charged	
Prime	70.02% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

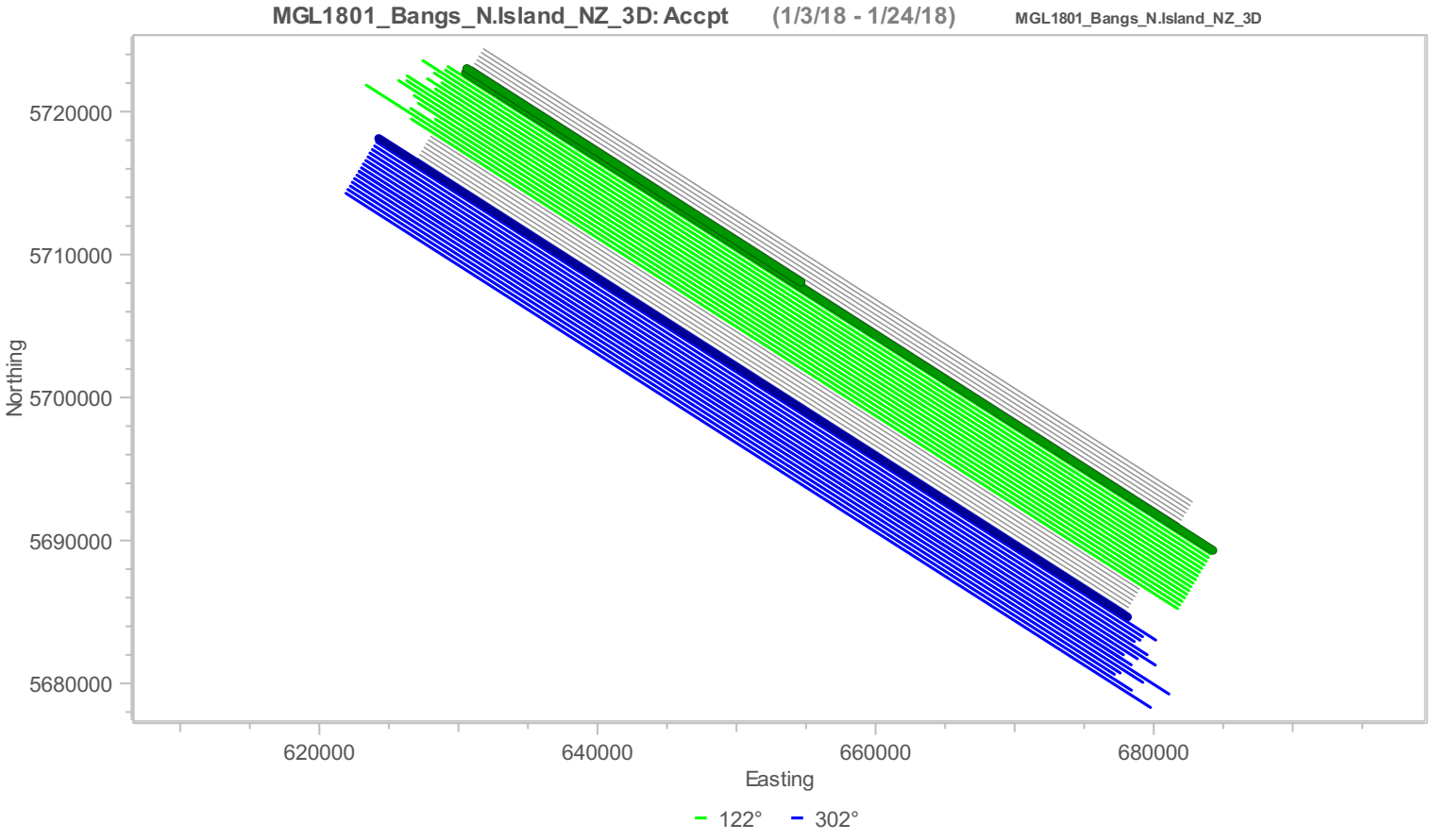
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
34	M1316	121.9	3410	879	Prime	63.28	4.659	Complete	Complete
35	M1124	301.9	989	3525	Prime	63.40	4.504	Complete	Complete
36	M1324	121.9	3413	2282	Prime	28.28	4.650	Part	Midnight
Total						**154.95**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	154.95	468.30	2188.45	2188.45
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Combined	**154.95**	**468.30**	**2256.38**	**2256.38**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 24 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 24 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Thu 25 Jan

The vessel started the day on Line 1324 which concluded at 04:02 UTC. The vessel made a line change to Line 1132, which started at 06:39 UTC and concluded at 14:13 UTC. The vessel made another line change to Line 1332, which started at 16:40 UTC but was aborted at 16:42 UTC due to Comm issues with Sub-Array #3. The Vessel circled around on Line 1332 while repairs were being made to Sub-Array #3. Also during this time Sub-Array #4 was recovered for preventive maintenance. Line A1332 was started at 20:55 UTC and continued throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Thu 25 Jan

The Vessel will start the day continuing line 1332. It is hoped that we can acquire data on line 1332, 1140, and 1340 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Thu 25. Jan 00:00	Thu 25. Jan 04:02	4.033
SOL Seq 36 Line:MGL1801M1324 Preplot:1324 FGSP=2281 FCSP=2281 Hdg=121.9° Prime EOL Seq 36 Line:MGL1801M1324 Preplot:1324 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Thu 25. Jan 04:02	Thu 25. Jan 06:39	2.617
Nominal Prime line change.				
Production Prime	AC_PP	Thu 25. Jan 06:39	Thu 25. Jan 14:13	7.567
SOL Seq 37 Line:MGL1801M1132 Preplot:1132 FGSP=991 FCSP=991 Hdg=301.9° Prime EOL Seq 37 Line:MGL1801M1132 Preplot:1132 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Thu 25. Jan 14:13	Thu 25. Jan 16:40	2.450
Nominal Prime line change.				
Source	DT_SC	Thu 25. Jan 16:40	Thu 25. Jan 16:42	0.033
NTBP Seq 38 FSP=3411 LSP=3398 Line Aborted due to Source Sub-Array communication errors.				
Source	DT_SC	Thu 25. Jan 16:42	Thu 25. Jan 20:55	4.217
Downtime due to source sub-array communication errors. Found chafed through wires at Element S3G4. Also recovered Source Sub-Array #4 for maintenance.				
Production Prime	AC_PP	Thu 25. Jan 20:55	Thu 25. Jan 20:57	0.033
SOL Seq 39 Line:MGL1801A1332 Preplot:1332 FGSP=3423 FCSP=3423 Hdg=121.9° Prime EOL Seq 39 Line:MGL1801A1332 Preplot:1332 LGSP=3412 LCSP=3412 Complete				
Production Prime	AC_PP	Thu 25. Jan 20:57	Thu 25. Jan 24:00	3.050
SOL Seq 39 Line:MGL1801A1332 Preplot:1332 FGSP=3397 FCSP=3397 Hdg=121.9° Prime MSP Seq 39 Line:MGL1801A1332 Preplot:1332 LGSP=2472 LCSP=2472 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

25-Jan	Hours	% Percent
Acquisition	**19.750**	**82.292**
Prime Line Change	5.067	21.111
Production Prime	14.683	61.181
DownTime	**4.250**	**17.708**
Source	4.250	17.708
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**22.017**
Deployment	48.733	9.230
Mob Ashore	44.833	8.491
Testing	5.533	1.048
Transit to Prospect	17.150	3.248
Acquisition	**360.883**	**68.349**
Infill Line Change	2.617	0.496
Prime Extended L/C	1.833	0.347
Prime Line Change	77.450	14.669
Production Infill	8.000	1.515
Production Prime	270.983	51.323
DownTime	**36.000**	**6.818**
Nav Systems Onboard	18.533	3.510
Source	17.467	3.308
Chargeable Standby	**14.867**	**2.816**
Weather	14.867	2.816
Total	528.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

74%

Percentages Charged	
Prime	73.93% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m

MGL1801_Bangs_N.Island_NZ_3D					
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

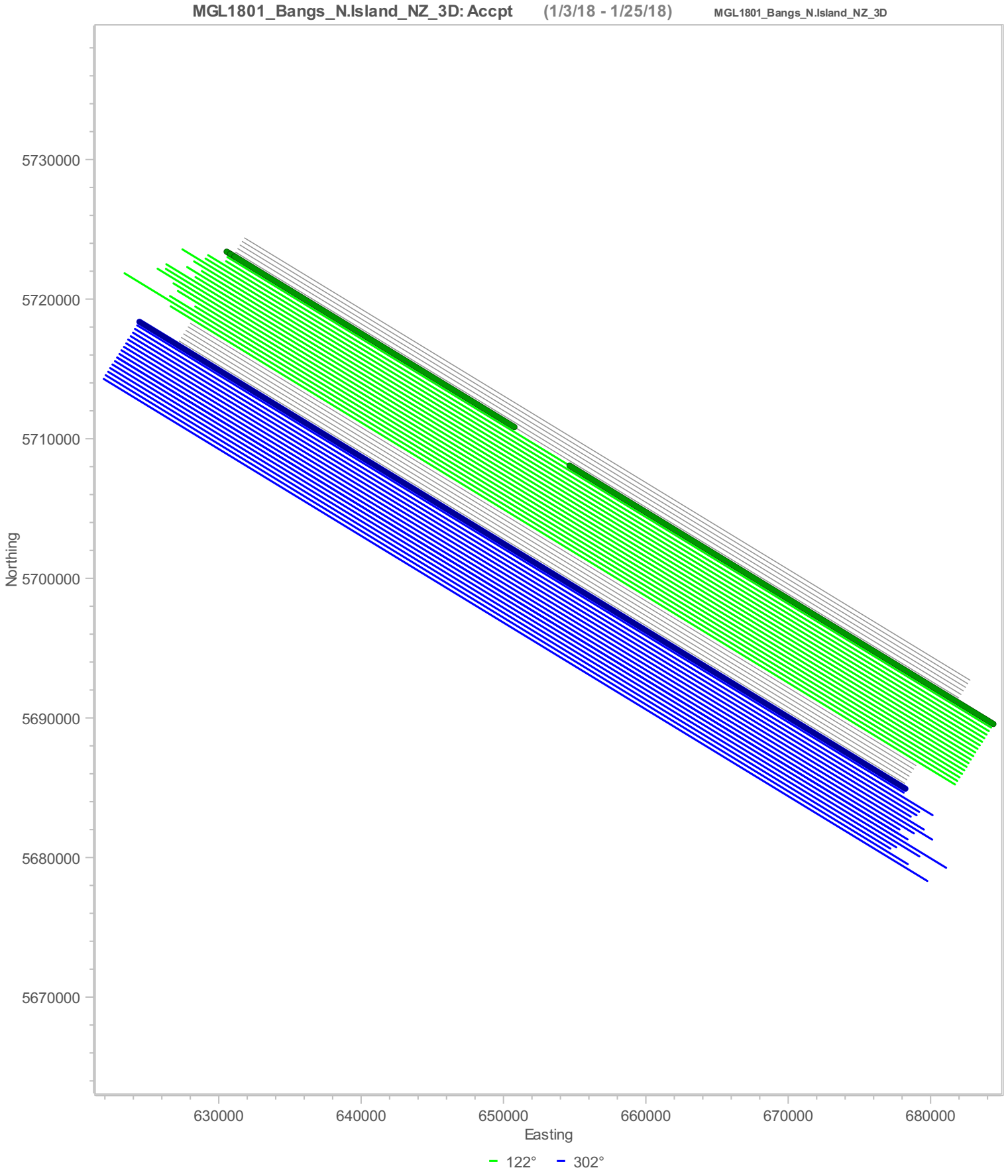
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
36	M1324	121.9	2281	879	Prime	35.08	4.696	Complete	Complete
37	M1132	301.9	991	3525	Prime	63.35	4.521	Complete	Complete
38	M1332	121.9	N/A	N/A	Prime	0.00	N/A	NTBP	NTBP
NTBP: 3411 - 3398 (not chgd)									
39	A1332	121.9	3423	3412	Prime	0.28	4.455	Complete	Complete
39	A1332	121.9	3411	3398	Prime, Reshoot	0.33	N/A	Complete	Complete
39	A1332	121.9	3397	2472	Prime	23.12	4.094	Part	Midnight
Total						**122.15**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	121.83	590.12	2310.27	2310.27
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	0.33	0.33	0.33	0.33
Combined	**122.15**	**590.45**	**2378.52**	**2378.52**


MGL1801_Bangs_N.Island_NZ_3D: Accpt
(1/3/18 - 1/25/18)
MGL1801_Bangs_N.Island_NZ_3D
Northing
5730000
5720000
5710000
5700000
5690000
5680000
5670000
630000
640000
650000
660000
670000
680000
Easting
122°
302°

Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 25 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
During the Run-in to line 1332 - The Comm Issues on Sub-Array #3 became consent. The Line was aborted and the sub-array was recovered for repairs. It was found that there was two jumpers at S3G4's position that had rubbed through an were shorting out. The Jumpers were changed and the array re-deployed an at this time the comm issue has been resolved.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 25 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Fri 26 Jan

The vessel started the day on Line 1332A which concluded at 04:46 UTC. The vessel made a line change to Line 1140, which started at 07:25 UTC and concluded at 14:57 UTC. The vessel made another line change to Line 1340, which started at 17:22 UTC and continued throughout the remainder of the day.

At ~22:45 UTC the vessel encountered Lone Line Gear, close in to the Stbd Bow. At ~23:08 the highflyer marking the northern end of the tow was caught on Lead-In #1. There was ~3 more small floats caught on the towed equipment. Attempts before and after the gear was caught were made to communicate with the Finish vessel that owned the gear. At ~01:15 UTC 27th the F/V Carolina M (3.3nm off the stbd side) made contact and was informed that their gear was tangled with ours.

At this time the fishing gear can be see towing from the Lead-in #1, but has not interfered with the Towed Streamer or Birds as yet.

Daily Comment Summaries - Plan for Tomorrow

Fri 26 Jan

The Vessel will start the day continuing line 1340. It is hoped that we can acquire data on line 1340, 1148, and 1348 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 26. Jan 00:00	Fri 26. Jan 04:46	4.767
SOL Seq 39 Line:MGL1801A1332 Preplot:1332 FGSP=2471 FCSP=2471 Hdg=121.9° Prime EOL Seq 39 Line:MGL1801A1332 Preplot:1332 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Fri 26. Jan 04:46	Fri 26. Jan 07:25	2.650
Nominal Prime line change.				
Production Prime	AC_PP	Fri 26. Jan 07:25	Fri 26. Jan 14:57	7.533
SOL Seq 40 Line:MGL1801M1140 Preplot:1140 FGSP=986 FCSP=986 Hdg=301.9° Prime EOL Seq 40 Line:MGL1801M1140 Preplot:1140 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Fri 26. Jan 14:57	Fri 26. Jan 17:22	2.417
Nominal Prime line change.				
Production Prime	AC_PP	Fri 26. Jan 17:22	Fri 26. Jan 24:00	6.633
SOL Seq 41 Line:MGL1801M1340 Preplot:1340 FGSP=3437 FCSP=3437 Hdg=121.9° Prime MSP Seq 41 Line:MGL1801M1340 Preplot:1340 LGSP=1202 LCSP=1202 Midnight At ~22:45 UTC the vessel encountered Lone Line Gear, close in to the Stbd Bow. At ~23:08 the highflyer marking the northern end of the tow was caught on Lead-In #1. There was ~3 more small floats caught on the towed equipment. Attempts before and after the gear was caught were made to communicate with the Finish vessel that owned the gear. At ~01:15 UTC 27th the F/V Carolina M (3.3nm off the stbd side) made contact and was informed that their gear was tangled with ours.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

26-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	5.067	21.111
Production Prime	18.933	78.889
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**21.060**
Deployment	48.733	8.829
Mob Ashore	44.833	8.122
Testing	5.533	1.002
Transit to Prospect	17.150	3.107
Acquisition	**384.883**	**69.725**
Infill Line Change	2.617	0.474
Prime Extended L/C	1.833	0.332
Prime Line Change	82.517	14.949
Production Infill	8.000	1.449
Production Prime	289.917	52.521
DownTime	**36.000**	**6.522**
Nav Systems Onboard	18.533	3.357
Source	17.467	3.164
Chargeable Standby	**14.867**	**2.693**
Weather	14.867	2.693
Total	552.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

79%

Percentages Charged	
Prime	79.02% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300

MGL1801_Bangs_N.Island_NZ_3D					
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

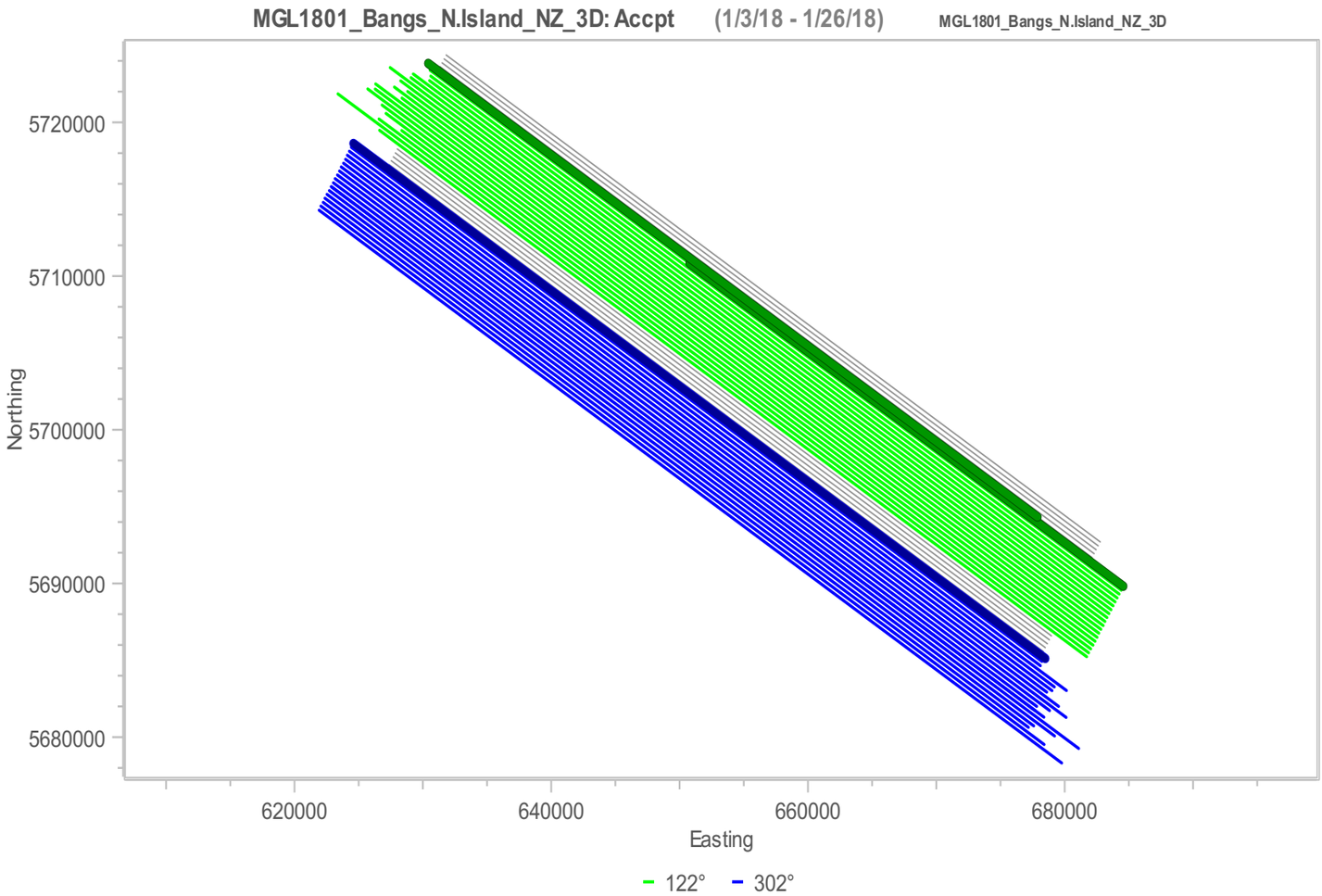
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
39	A1332	121.9	2471	879	Prime	39.83	4.511	Complete	Complete
40	M1140	301.9	986	3525	Prime	63.48	4.550	Complete	Complete
41	M1340	121.9	3437	1202	Prime	55.88	4.548	Part	Midnight
Total						**159.18**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	159.18	749.30	2469.45	2469.45
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	0.00	0.33	0.33	0.33
Combined	**159.18**	**749.63**	**2537.70**	**2537.70**



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 26 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
Fishing gear observed being towed from Lead-in #1

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 26 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sat 27 Jan

The vessel started the day on Line 1340 which concluded at 00:56 UTC. The vessel made a line change to Line 1148, which started at 03:50 UTC and concluded at 11:20 UTC. The vessel made another line change to Line 1348, which started at 13:38 UTC and and concluded at 21:15 UTC. The vessel make yet another line change to Line 1156 which started at 23:56 and continued throughout the remainder of the day.

At ~22:45 UTC 26th of Jan the vessel encountered Long Line Gear, close in to the Stbd Bow. At ~23:08 the highflyer marking the northern end of the tow was caught on Lead-In #1. There was ~3 more small floats caught on the towed equipment. Attempts before and after the gear was caught were made to communicate with the Finish vessel that owned the gear. At ~01:15 UTC 27th the F/V Carolina M (3.3nm off the stbd side) made contact and was informed that their gear was tangled with ours. Work boat was launched at 02:45 UTC as the vessel was finishing its turn on-line to remove the visible floats and any fishing line it could from streamer #1. The Workboat was back onboard at 04:00 UTC after removing 3 Buoy and some fishing line from streamer #1

Daily Comment Summaries - Plan for Tomorrow

Sat 27 Jan

The Vessel will start the day continuing line 1348. It is hoped that we can acquire data on line 1348, 1156, and 1356 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sat 27. Jan 00:00	Sat 27. Jan 00:56	0.933
SOL Seq 41 Line:MGL1801M1340 Preplot:1340 FGSP=1201 FCSP=1201 Hdg=121.9° Prime EOL Seq 41 Line:MGL1801M1340 Preplot:1340 LGSP=879 LCSP=879 Complete At ~22:45 UTC 26th of Feb, the vessel encountered Long Line Gear, close in to the Stbd Bow. At ~23:08 the highflyer marking the northern end of the tow was caught on Lead-In #1. There was ~3 more small floats caught on the towed equipment. Attempts before and after the gear was caught were made to communicate with the Finish vessel that owned the gear. At ~01:15 UTC 27th the F/V Carolina M (3.3nm off the stbd side) made contact and was informed that their gear was tangled with ours.				
Prime Line Change	AC_PLC	Sat 27. Jan 00:56	Sat 27. Jan 03:50	2.900
Nominal Prime line change. Sub-Array #3 Maintenance - removal of fishing gear.				
Production Prime	AC_PP	Sat 27. Jan 03:50	Sat 27. Jan 11:20	7.500
SOL Seq 42 Line:MGL1801M1148 Preplot:1148 FGSP=989 FCSP=989 Hdg=301.9° Prime EOL Seq 42 Line:MGL1801M1148 Preplot:1148 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sat 27. Jan 11:20	Sat 27. Jan 13:48	2.467

Category	Code	Start	End	Duration
Nominal Prime line change.				
Production Prime	AC_PP	Sat 27. Jan 13:48	Sat 27. Jan 21:15	7.450
SOL Seq 43 Line:MGL1801M1348 Preplot:1348 FGSP=3437 FCSP=3437 Hdg=121.9° Prime EOL Seq 43 Line:MGL1801M1348 Preplot:1348 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sat 27. Jan 21:15	Sat 27. Jan 23:56	2.683
Nominal Prime line change.				
Production Prime	AC_PP	Sat 27. Jan 23:56	Sat 27. Jan 24:00	0.067
SOL Seq 44 Line:MGL1801M1156 Preplot:1148 FGSP=984 FCSP=984 Hdg=301.9° Prime MSP Seq 44 Line:MGL1801M1156 Preplot:1148 LGSP=1006 LCSP=1006 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

27-Jan	Hours	%Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	8.050	33.542
Production Prime	15.950	66.458
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	%Percent
Mobilisation	**116.250**	**20.182**
Deployment	48.733	8.461
Mob Ashore	44.833	7.784
Testing	5.533	0.961
Transit to Prospect	17.150	2.977
Acquisition	**408.883**	**70.987**
Infill Line Change	2.617	0.454
Prime Extended L/C	1.833	0.318
Prime Line Change	90.567	15.723
Production Infill	8.000	1.389
Production Prime	305.867	53.102
DownTime	**36.000**	**6.250**
Nav Systems Onboard	18.533	3.218
Source	17.467	3.032
Chargeable Standby	**14.867**	**2.581**
Weather	14.867	2.581
Total	576.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

83%

Percentages Charged	
Prime	83.37% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

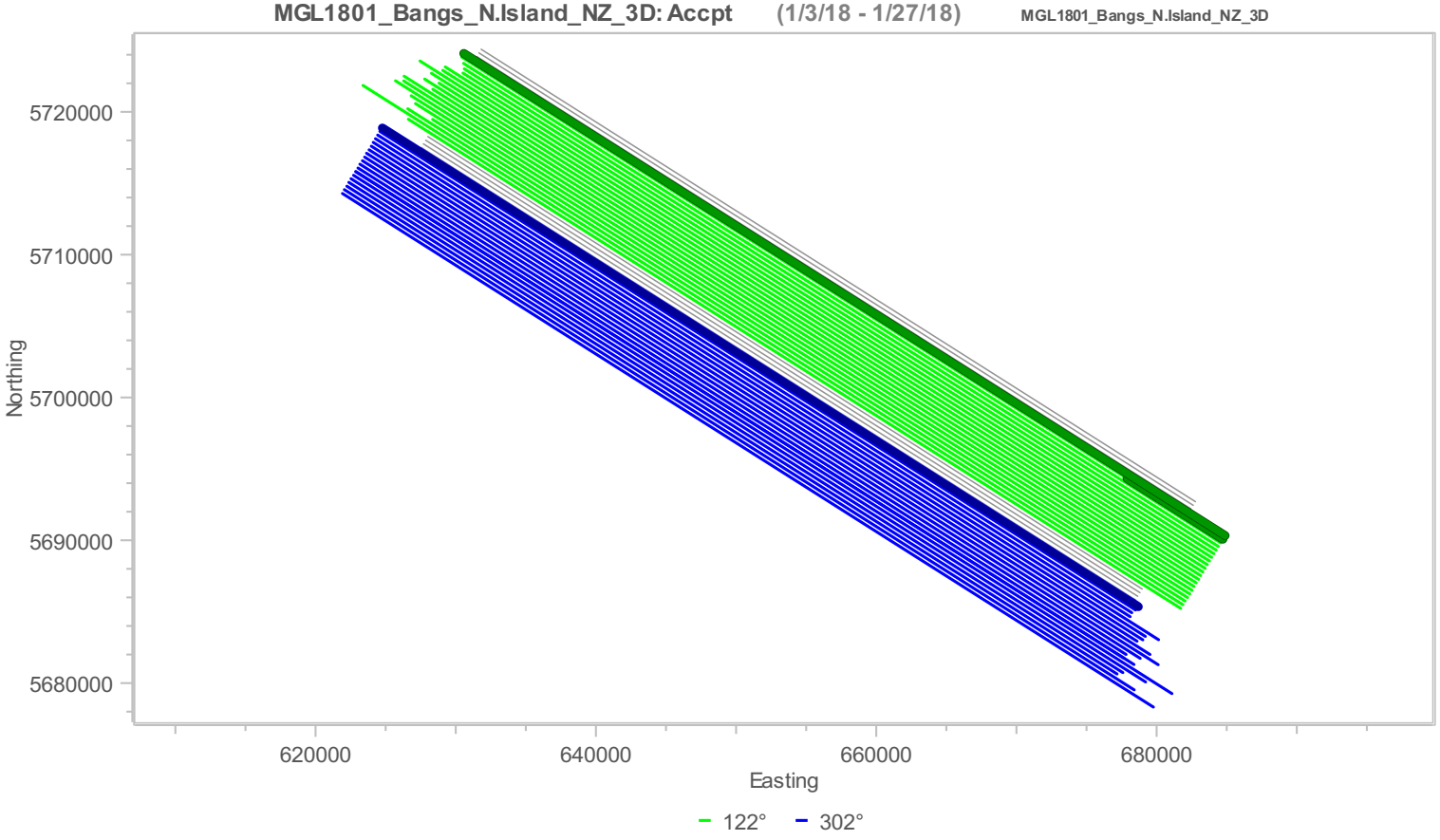
MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
41	M1340	121.9	1201	879	Prime	8.08	4.672	Complete	Complete
42	M1148	301.9	989	3524	Prime	63.38	4.563	Complete	Complete
43	M1348	121.9	3437	879	Prime	63.95	4.635	Complete	Complete
44	M1156	301.9	984	1006	Prime	0.55	4.455	Part	Midnight
Total						**135.95**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	135.95	885.25	2605.40	2605.40
Infill	0.00	0.00	3.38	3.38

Charged km	Day	Week	Month	Project
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	0.00	0.33	0.33	0.33
Combined	**135.95**	**885.58**	**2673.65**	**2673.65**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 27 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 27 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sun 28 Jan

The vessel started the day on Line 1156 which concluded at 07:30 UTC. The vessel made a line change to Line 1356, which started at 09:59 UTC and concluded at 17:22 UTC. The vessel made another line change to Line 1164, which started at 19:55 UTC and continued throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Sun 28 Jan

The Vessel will start the day continuing line 1164. It is hoped that we can acquire data on line 1164, 1364, and 1172 during the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sun 28. Jan 00:00	Sun 28. Jan 07:30	7.500
SOL Seq 44 Line:MGL1801M1156 Preplot:1148 FGSP=1007 FCSP=1007 Hdg=301.9° Prime EOL Seq 44 Line:MGL1801M1156 Preplot:1148 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sun 28. Jan 07:30	Sun 28. Jan 09:59	2.483
Nominal Prime line change.				
Production Prime	AC_PP	Sun 28. Jan 09:59	Sun 28. Jan 17:22	7.383
SOL Seq 45 Line:MGL1801M1356 Preplot:1356 FGSP=3413 FCSP=3413 Hdg=121.9° Prime EOL Seq 45 Line:MGL1801M1356 Preplot:1356 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sun 28. Jan 17:22	Sun 28. Jan 19:55	2.550
Nominal Prime line change.				
Production Prime	AC_PP	Sun 28. Jan 19:55	Sun 28. Jan 24:00	4.083
SOL Seq 46 Line:MGL1801M1164 Preplot:1164 FGSP=960 FCSP=960 Hdg=301.9° Prime MSP Seq 46 Line:MGL1801M1164 Preplot:1164 LGSP=2267 LCSP=2267 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

28-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	5.033	20.972
Production Prime	18.967	79.028
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**19.375**
Deployment	48.733	8.122
Mob Ashore	44.833	7.472
Testing	5.533	0.922

Category	Hours	% Percent
Transit to Prospect	17.150	2.858
Acquisition	**432.883**	**72.147**
Infill Line Change	2.617	0.436
Prime Extended L/C	1.833	0.306
Prime Line Change	95.600	15.933
Production Infill	8.000	1.333
Production Prime	324.833	54.139
DownTime	**36.000**	**6.000**
Nav Systems Onboard	18.533	3.089
Source	17.467	2.911
Chargeable Standby	**14.867**	**2.478**
Weather	14.867	2.478
Total	600.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

88%

Percentages Charged	
Prime	88.46% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

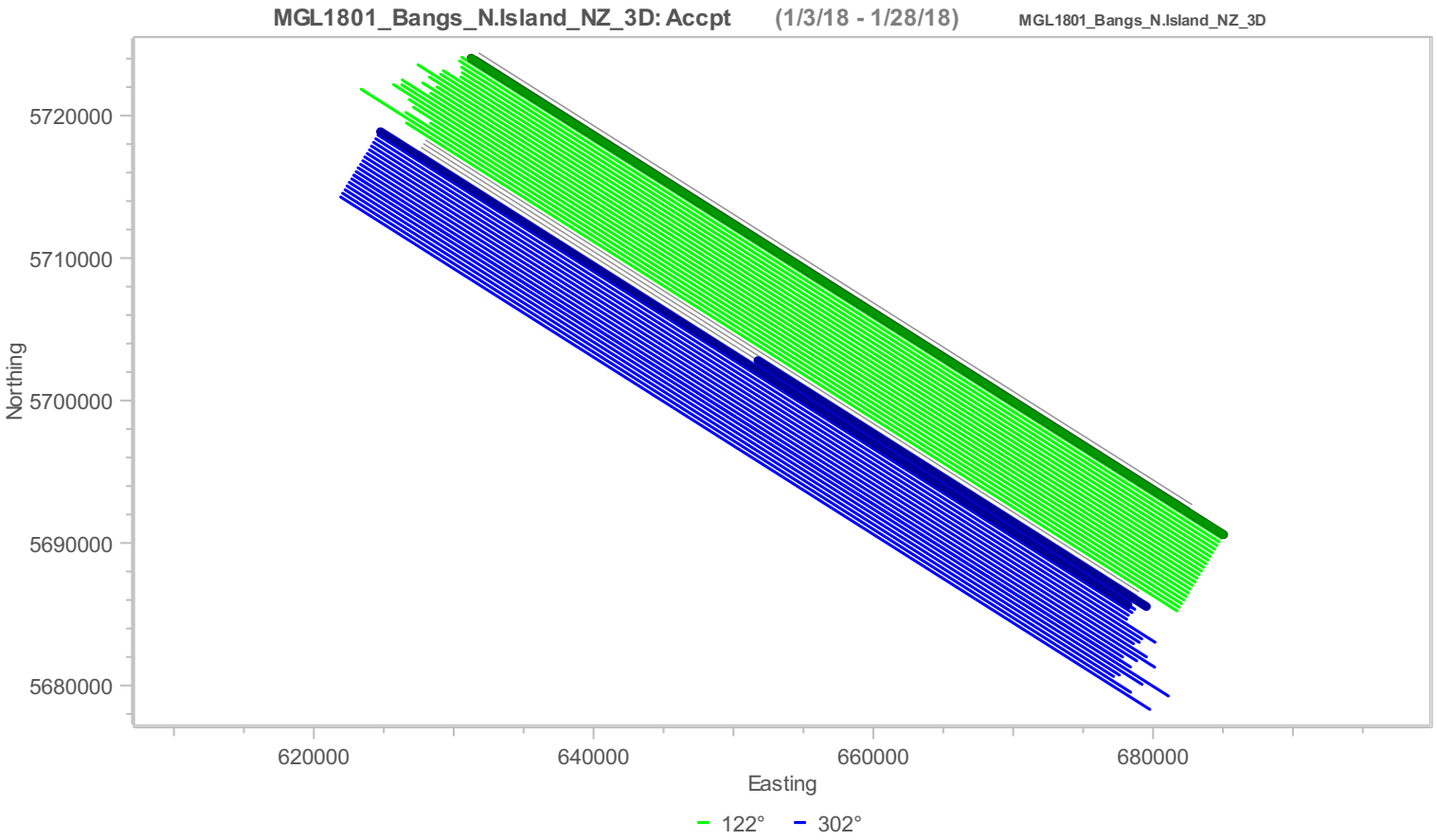
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
44	M1156	301.9	1007	3524	Prime	62.95	4.532	Complete	Complete
45	M1356	121.9	3413	879	Prime	63.35	4.633	Complete	Complete
46	M1164	301.9	960	2267	Prime	32.68	4.321	Part	Midnight
Total						**158.98**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	158.98	1044.23	2764.37	2764.37
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	0.00	0.33	0.33	0.33
Combined	**158.98**	**1044.55**	**2832.62**	**2832.62**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 28 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 28 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Mon 29 Jan

The vessel started the day on Line 1164 which concluded at 03:40 UTC. The vessel made a line change to Line 1364, which started at 06:05 UTC and concluded at 13:20 UTC. The vessel made another line change to Line 1172, which started at 15:57 UTC and continued throughout the remainder of the day. By the end of the day the Winds were up to 20-25 kts out of the North and the seas were 1.5m and starting to build.

Daily Comment Summaries - Plan for Tomorrow

Mon 29 Jan

The Vessel will start the day continuing line 1172. It is hoped that we can acquire data on line 1172, 1372, and 1180 during the day. The remnants of a tropic cyclone are moving in to the area from the North over the next couple of days and will at sometime have an impact on production.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Mon 29. Jan 00:00	Mon 29. Jan 03:40	3.667
SOL Seq 46 Line:MGL1801M1164 Preplot:1164 FGSP=2268 FCSP=2268 Hdg=301.9° Prime EOL Seq 46 Line:MGL1801M1164 Preplot:1164 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Mon 29. Jan 03:40	Mon 29. Jan 06:05	2.417
Nominal Prime line change.				
Production Prime	AC_PP	Mon 29. Jan 06:05	Mon 29. Jan 13:20	7.250
SOL Seq 47 Line:MGL1801M1364 Preplot:1364 FGSP=3423 FCSP=3423 Hdg=121.9° Prime EOL Seq 47 Line:MGL1801M1364 Preplot:1364 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Mon 29. Jan 13:20	Mon 29. Jan 15:57	2.617
Nominal Prime line change.				
Production Prime	AC_PP	Mon 29. Jan 15:57	Mon 29. Jan 24:00	8.050
SOL Seq 48 Line:MGL1801M1172 Preplot:1172 FGSP=971 FCSP=971 Hdg=301.9° Prime MSP Seq 48 Line:MGL1801M1172 Preplot:1172 LGSP=3393 LCSP=3393 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

29-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Prime Line Change	5.033	20.972
Production Prime	18.967	79.028
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**18.630**
Deployment	48.733	7.810

Category	Hours	% Percent
Mob Ashore	44.833	7.185
Testing	5.533	0.887
Transit to Prospect	17.150	2.748
Acquisition	**456.883**	**73.218**
Infill Line Change	2.617	0.419
Prime Extended L/C	1.833	0.294
Prime Line Change	100.633	16.127
Production Infill	8.000	1.282
Production Prime	343.800	55.096
DownTime	**36.000**	**5.769**
Nav Systems Onboard	18.533	2.970
Source	17.467	2.799
Chargeable Standby	**14.867**	**2.382**
Weather	14.867	2.382
Total	624.000	

Survey Progress (MGL1801_Bangs_N.Island_NZ_3D)

Percentage of Prime Charged

93%

Percentages Charged	
Prime	93.43% of 3125.50 km (Sail Line)

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

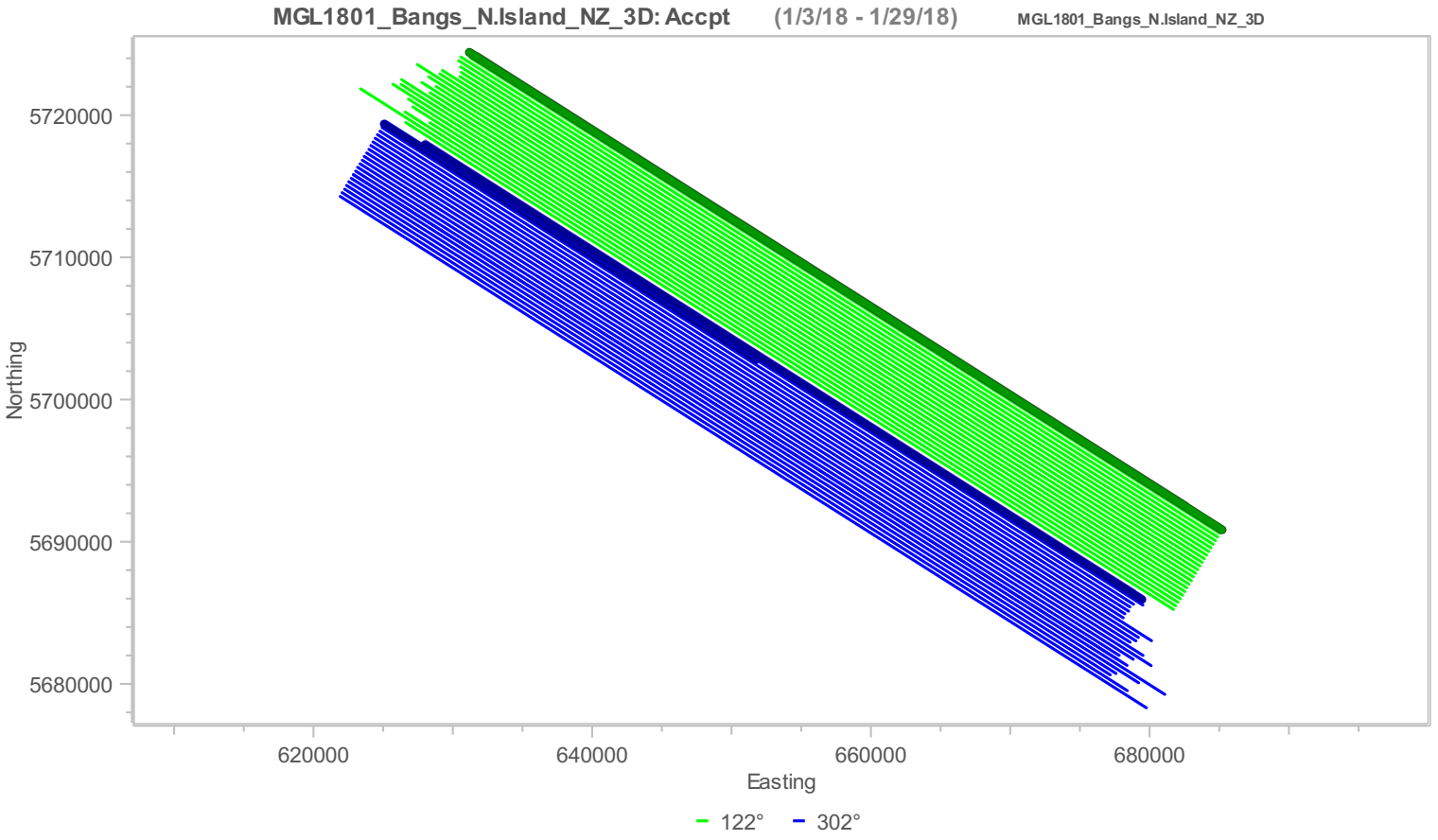
MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
46	M1164	301.9	2268	3524	Prime	31.43	4.628	Complete	Complete
47	M1364	121.9	3423	879	Prime	63.60	4.737	Complete	Complete

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
48	M1172	301.9	971	3393	Prime	60.55	4.061	Part	Midnight
Total						**155.58**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	155.58	155.58	2919.95	2919.95
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	0.00	0.00	0.33	0.33
Combined	**155.58**	**155.58**	**2988.20**	**2988.20**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 29 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 29 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Tue 30 Jan

The vessel started the day on Line 1172 which concluded at 00:24 UTC. The vessel made a line change to Line 1372, which started at 02:53 UTC and concluded at 10:08 UTC. The vessel made another line change to Line 1180, which started at 12:46 UTC and concluded at 21:10 UTC The vessel made yet another line change to Line R1268, which started at 23:38 UTC and continued throughout the remainder of the day. By the end of the day the Winds were up to 30-35 kts out of the NNE and the seas were 2-3m.

At the end of Line 1180 t his concluded all the prime coverage of the 3D Area . The Vessel will start working on Re-Shot and Infill for the remainder of the survey.

Daily Comment Summaries - Plan for Tomorrow

Tue 30 Jan

The Vessel will start the day continuing line R1268. At 01:00 UTC the vessel aborted line R1268 Due to weather and will be in standby for the next day or so until the WX subsides.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Tue 30. Jan 00:00	Tue 30. Jan 00:24	0.400
SOL Seq 48 Line:MGL1801M1172 Preplot:1172 FGSP=3394 FCSP=3394 Hdg=301.9° Prime EOL Seq 48 Line:MGL1801M1172 Preplot:1172 LGSP=3525 LCSP=3525 Complete				
Prime Line Change	AC_PLC	Tue 30. Jan 00:24	Tue 30. Jan 02:53	2.483
Nominal Prime line change.				
Production Prime	AC_PP	Tue 30. Jan 02:53	Tue 30. Jan 10:08	7.250
SOL Seq 49 Line:MGL18011372 FGSP=3418 FCSP=3418 Hdg=121.9° Prime EOL Seq 49 Line:MGL18011372 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Tue 30. Jan 10:08	Tue 30. Jan 12:46	2.633
Nominal Prime line change.				
Production Prime	AC_PP	Tue 30. Jan 12:46	Tue 30. Jan 21:10	8.400
SOL Seq 50 Line:MGL1801M1180 Preplot:1180 FGSP=933 FCSP=933 Hdg=301.9° Prime EOL Seq 50 Line:MGL1801M1180 Preplot:1180 LGSP=3525 LCSP=3525 Complete				
Infill Line Change	AC_ILC	Tue 30. Jan 21:10	Tue 30. Jan 23:38	2.467
Nominal Infill line change.				
Production Prime	AC_PP	Tue 30. Jan 23:38	Tue 30. Jan 24:00	0.367
SOL Seq 51 Line:MGL18011268 FGSP=3422 FCSP=3422 Hdg=121.9° Prime MSP Seq 51 Line:MGL18011268 LGSP=3293 LCSP=3293 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

30-Jan	Hours	% Percent
Acquisition	**24.000**	**100.000**
Infill Line Change	2.467	10.278
Prime Line Change	5.117	21.319
Production Prime	16.417	68.403
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**17.940**
Deployment	48.733	7.521
Mob Ashore	44.833	6.919
Testing	5.533	0.854
Transit to Prospect	17.150	2.647
Acquisition	**480.883**	**74.210**
Infill Line Change	5.083	0.784
Prime Extended L/C	1.833	0.283
Prime Line Change	105.750	16.319
Production Infill	8.000	1.235
Production Prime	360.217	55.589
DownTime	**36.000**	**5.556**
Nav Systems Onboard	18.533	2.860
Source	17.467	2.695
Chargeable Standby	**14.867**	**2.294**
Weather	14.867	2.294
Total	648.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

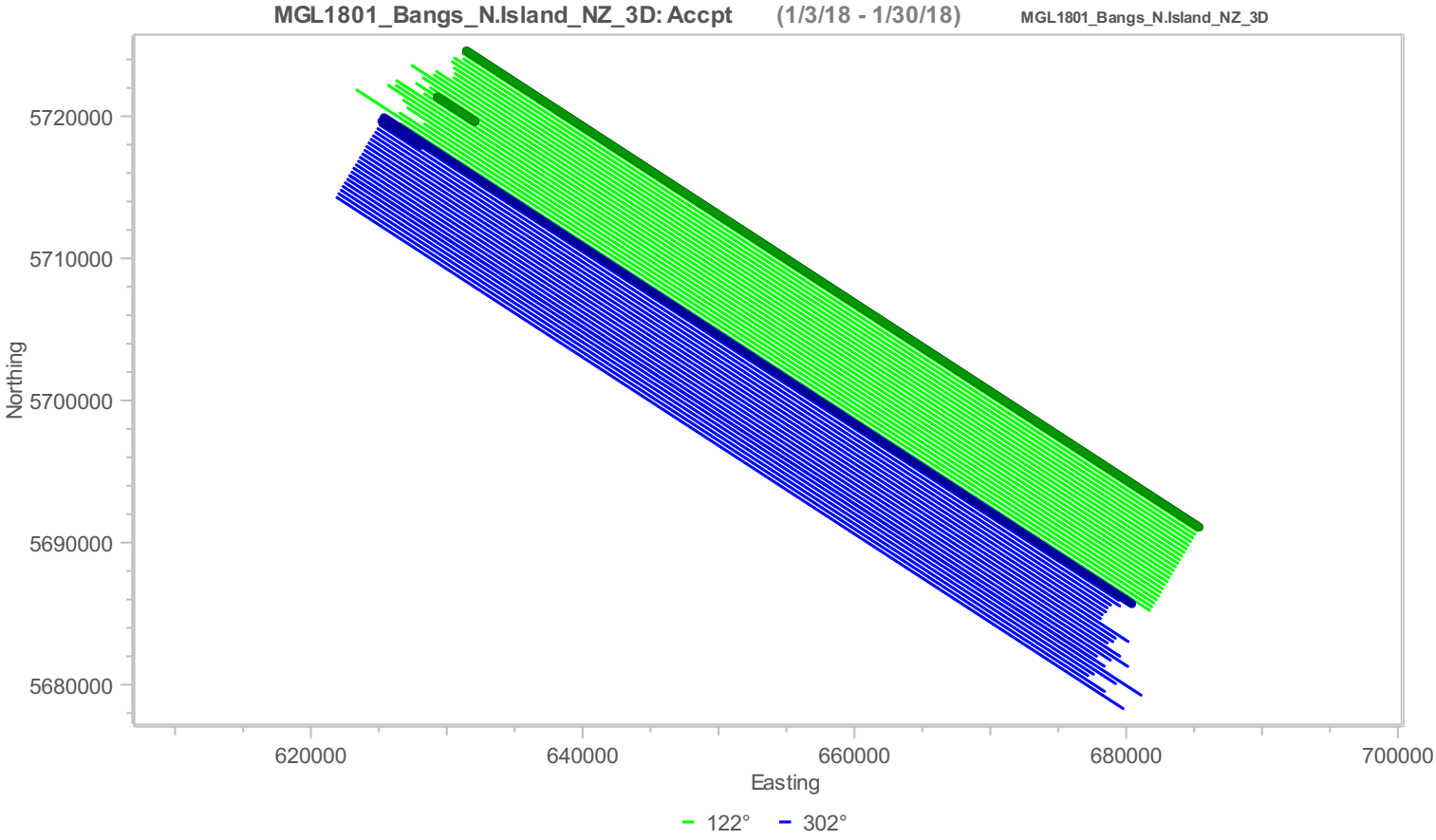
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
48	M1172	301.9	3394	3525	Prime	3.30	4.455	Complete	Complete
49	M1372	121.9	3418	879	Prime	63.48	4.727	Complete	Complete
50	M1180	301.9	933	3525	Prime	64.80	4.165	Complete	Complete
51	1268	121.9	3422	3293	Prime, Reshoot	3.23	4.749	Part	Midnight
Total						**134.80**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	131.57	287.15	3051.52	3051.52
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	3.23	3.23	3.55	3.55
Combined	**134.80**	**290.38**	**3123.00**	**3123.00**



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 30 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 30 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Wed 31 Jan

The vessel started the day on Line R1286 which was aborted at 01:01 UTC due to weather (NNE 30-35 kts and the seas were 2-3m). The vessel recovered the source Sub-Arrays and remained down for weather throughout the remainder of the day.

During the evening hours Streamer 4 Developed some telemetry issues and it took a while but the Tech's were able to get the streamer working again. The only causality is that TB#4 will not be able to be charged during lines due to CRC (Telemetry) issues when the TAPU is powered on.

Daily Comment Summaries - Plan for Tomorrow

Wed 31 Jan

The Vessel will start the day remaining down for weather. It is planned that at ~19:00 UTC the weather is forcast to drop. The vessel will make sure it is on-line an ready to go when the weather breaks.

According to the forecast models we should get a ~24 Hour weather window from ~19:00 UTC on the 1st Feb to ~21:00 UTC on the 2nd of Feb to get some data acquisition in. After 21:00 UTC on the 2nd the weather is forecast to switch around to the south and start blowing again as the low pressure moves off Northeast.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Wed 31. Jan 00:00	Wed 31. Jan 01:01	1.017
SOL Seq 51 Line:MGL18011268 FGSP=3292 FCSP=3292 Hdg=121.9° Prime EOL Seq 51 Line:MGL18011268 LGSP=2933 LCSP=2933 Complete				
Weather	SB_WX	Wed 31. Jan 01:01	Wed 31. Jan 01:50	0.817
Chargeable standby due to weather. Turning Head Seas to begin recovery of the Source.				
Weather	SB_WX	Wed 31. Jan 01:50	Wed 31. Jan 03:13	1.383
Chargeable standby due to weather. Recovery of Source				
Weather	SB_WX	Wed 31. Jan 03:13	Wed 31. Jan 16:50	13.617
Chargeable standby due to weather. Heading to the Northwest into the seas to standby for the weather.				
Weather	SB_WX	Wed 31. Jan 16:50	Wed 31. Jan 18:00	1.167
Chargeable standby due to weather. - Turning around to head back to South				
Weather	SB_WX	Wed 31. Jan 18:00	Wed 31. Jan 24:00	6.000
Chargeable standby due to weather. Continue standing by for weather.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

31-Jan	Hours	% Percent
Acquisition	**1.017**	**4.236**
Production Prime	1.017	4.236
Chargeable Standby	**22.983**	**95.764**
Weather	22.983	95.764
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**17.299**
Deployment	48.733	7.252
Mob Ashore	44.833	6.672
Testing	5.533	0.823
Transit to Prospect	17.150	2.552
Acquisition	**481.900**	**71.711**
Infill Line Change	5.083	0.756
Prime Extended L/C	1.833	0.273
Prime Line Change	105.750	15.737
Production Infill	8.000	1.190
Production Prime	361.233	53.755
DownTime	**36.000**	**5.357**
Nav Systems Onboard	18.533	2.758
Source	17.467	2.599
Chargeable Standby	**37.850**	**5.632**
Weather	37.850	5.632
Total	672.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

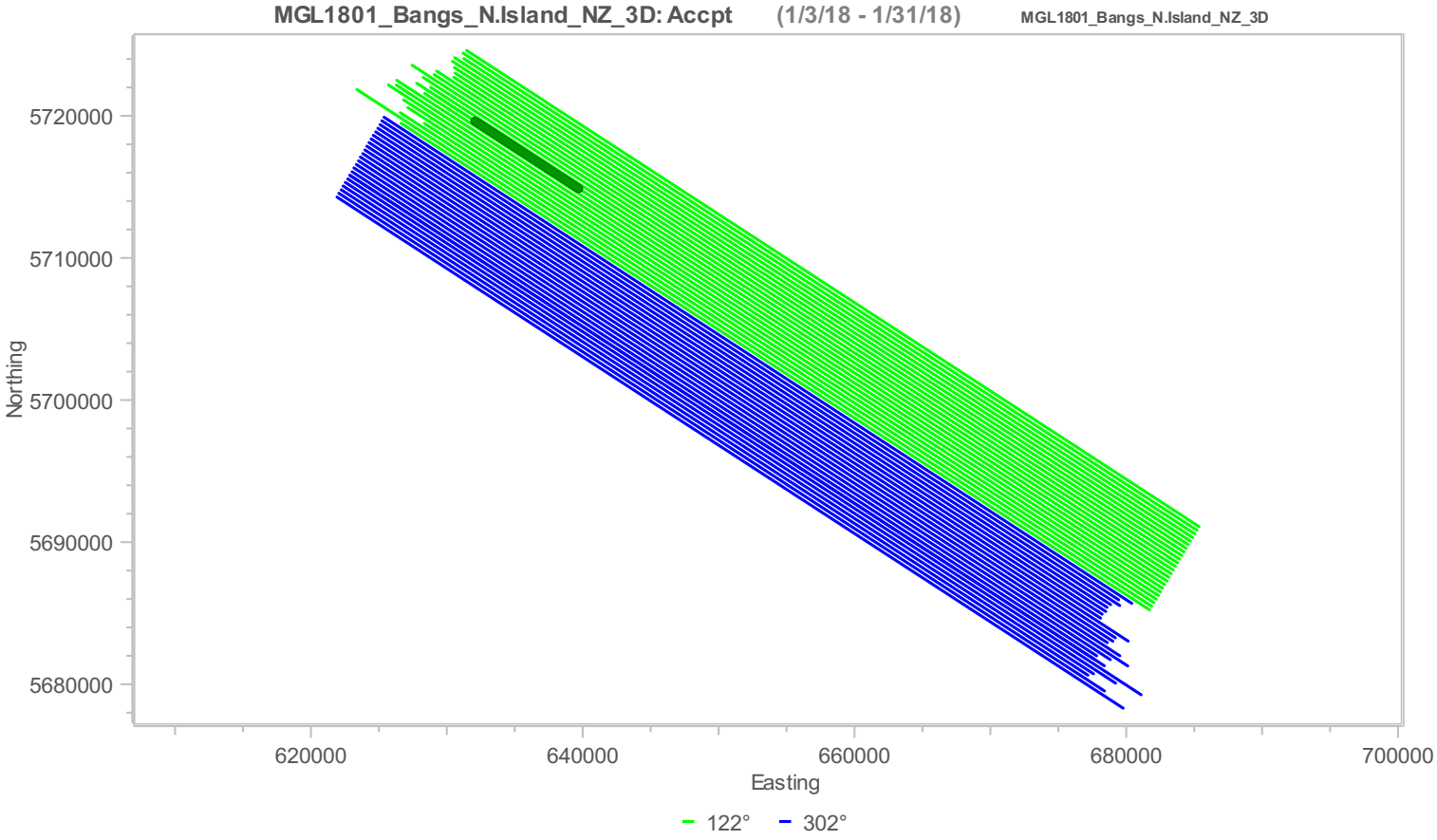
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
51	1268	121.9	3292	2933	Prime, Reshoot	9.00	4.780	Complete	Complete
Total						**9.00**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	287.15	3051.52	3051.52
Infill	0.00	0.00	3.38	3.38
Infill, Progressive	0.00	0.00	64.55	64.55
Prime, Reshoot	9.00	12.22	12.55	12.55
Combined	**9.00**	**299.38**	**3132.00**	**3132.00**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 31 Jan

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During the evening hours Streamer 4 Developed some telemetry issues and it took a while but the Tech's were able to get the streamer working again. The only causality is that TB#4 will not be able to be charged during lines due to CRC (Telemetry) issues when the TAPU is powered on.

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 31 Jan

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Thu 01 Feb

The vessel started down for weather throughout the day. At 23:00 UTC the source is being deployed and preparation for the start of line 1268A ongoing.

Daily Comment Summaries - Plan for Tomorrow

Thu 01 Feb

The Vessel will start the day continuing down for weather, deploying the source an making preparation for line 1268A. If the weather holds out the vessel will acquier data on 1268A, 1076R, and 1244I

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Weather	SB_WX	Thu 1. Feb 00:00	Thu 1. Feb 23:00	23.000
Chargeable standby due to weather. Continue standing by for weather.				
Weather	SB_WX	Thu 1. Feb 23:00	Thu 1. Feb 24:00	1.000
Chargeable standby due to weather. - Deploying Source				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

1-Feb	Hours	% Percent
Chargeable Standby	**24.000**	**100.000**
Weather	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**16.727**
Deployment	48.733	7.012
Mob Ashore	44.833	6.451
Testing	5.533	0.796
Transit to Prospect	17.150	2.468
Acquisition	**480.883**	**69.194**
Infill Line Change	5.083	0.731
Prime Extended L/C	1.833	0.264
Prime Line Change	105.750	15.216
Production Infill	8.000	1.151
Production Prime	360.217	51.831
DownTime	**36.000**	**5.180**
Nav Systems Onboard	18.533	2.667
Source	17.467	2.513
Chargeable Standby	**61.850**	**8.899**

Category	Hours	% Percent
Weather	61.850	8.899
Total	694.983	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

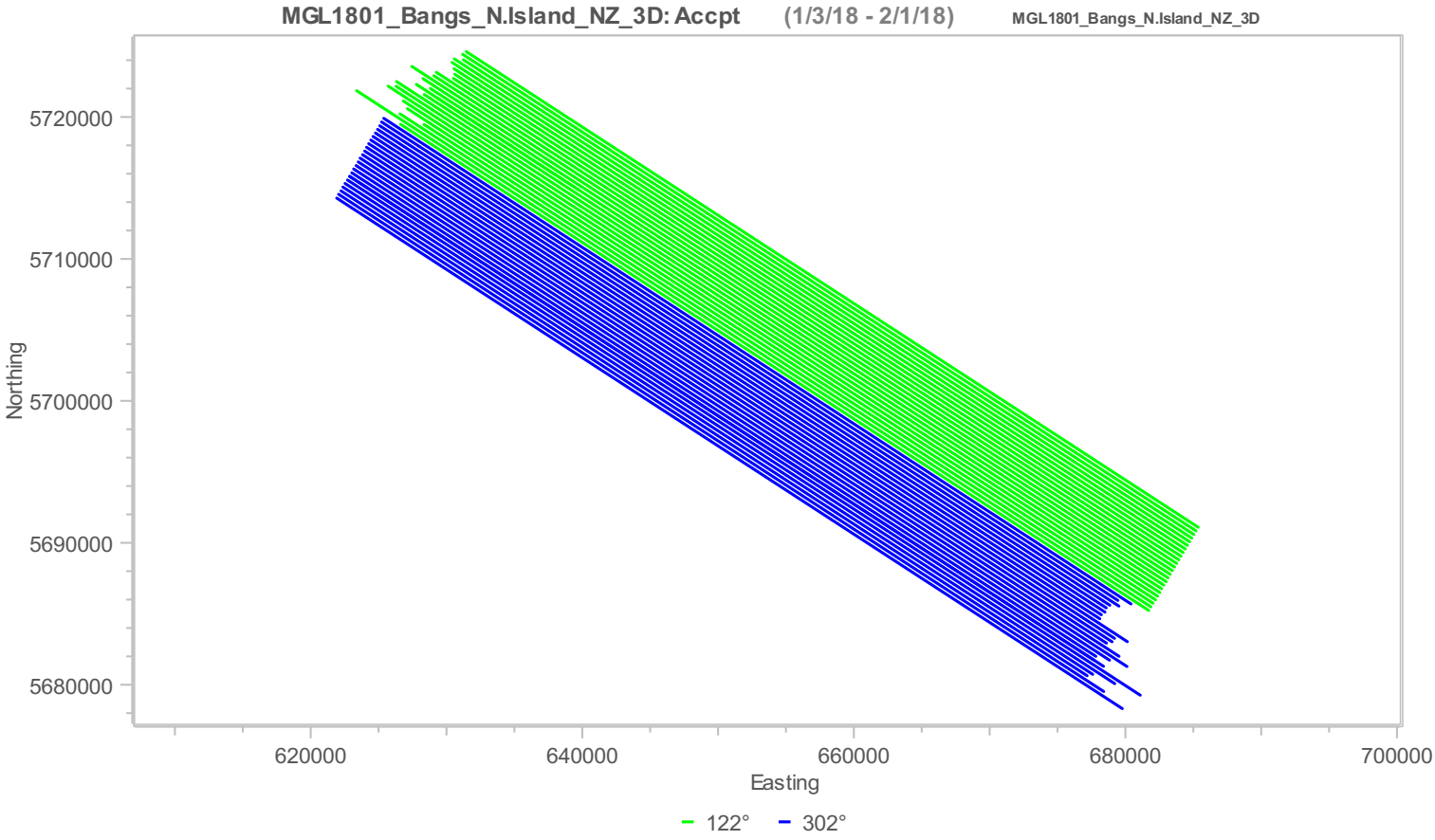
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801) (no data for period)

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					**0.00**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	287.15	0.00	3051.52
Infill	0.00	0.00	0.00	3.38
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	12.22	0.00	12.55
Combined	**0.00**	**299.38**	**0.00**	**3132.00**


MGL1801_Bangs_N.Island_NZ_3D: Accpt
(1/3/18 - 2/1/18)
MGL1801_Bangs_N.Island_NZ_3D
5720000
5710000
5700000
5690000
5680000
Northing
620000
640000
660000
680000
700000
Easting
122°
302°

Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 01 Feb

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 01 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Fri 02 Feb

The vessel started down for weather but was re-deploying the source in preparation to restart acquisition. The Source was deployed at 00:32 UTC and at 00:41 UTC a Lobster Pot from the F/V Lucky 1 was snagged on Streamer #3 at Bird 5. After some attempts to dislodge it, recovery of the streamer began at 02:30 UTC. At 04:53 UTC the streamer was up and the lobster pot was removed an re-deployment commenced. At 06:50 UTC the Streamers were re-deployed and the source was out and ramped up by 08:21 UTC. At this time the vessel headed towards Line 1078. At 11:45 UTC Streamer 3 was showing power line leakage issues . Recovery of the Source commenced and by 15:03 UTC the source was onboard and again recovery of Streamer #3 began. Shortly after the recovery began a full system re-set / changing of the streamer power supply the leakage error was gone. The Streamers were re-deployed and rampup by 18:54 UTC but by this time the weather had incressed out of the South 30-35kts and 2-4m seas.

While standing by for weather the vessel did some testing on line (T1084) of the source, recording system, and the navigation system to insure they were all working properly an returned to standing by for Weather. This continued throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Fri 02 Feb

The Vessel will start the day continuing down for weather with all towed equipment deploy. It is hopped that by about 20:00 UTC that the weather will have subsided enough to return to work.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Weather	SB_WX	Fri 2. Feb 00:00	Fri 2. Feb 00:41	0.683
Chargeable standby due to weather. Continue deploying Source				
Fishing	SB_FS	Fri 2. Feb 00:41	Fri 2. Feb 01:59	1.300
Chargeable standby due to fishing. Made contact with Lobster Trap on Streamer #4 trying to get it loose.				
Fishing	SB_FS	Fri 2. Feb 01:59	Fri 2. Feb 02:55	0.933
Chargeable standby due to fishing. - Recovery of Sub-Arrays 3 and 4				
Fishing	SB_FS	Fri 2. Feb 02:55	Fri 2. Feb 04:53	1.967
Chargeable standby due to fishing. - Recovery of Streamer #3 to remove Lobster Trap				
Fishing	SB_FS	Fri 2. Feb 04:53	Fri 2. Feb 06:50	1.950
Chargeable standby due to fishing. - Lobster Trap removed redeploying Streamers				
Fishing	SB_FS	Fri 2. Feb 06:50	Fri 2. Feb 08:21	1.517
Chargeable standby due to fishing. - Re-deploying Sources Sub-Arrays 3 and 4 & Ramping up.				
Fishing	SB_FS	Fri 2. Feb 08:21	Fri 2. Feb 11:45	3.400
Chargeable standby due to fishing. - Transiting to Line R1076 after re-deployment of Towed Equipment for Lobster Trap.				
Streamers	DT_ST	Fri 2. Feb 11:45	Fri 2. Feb 14:25	2.667
Downtime due to streamers - Recovering Source to start trouble shooting power problem on Streamer #3				
Streamers	DT_ST	Fri 2. Feb 14:25	Fri 2. Feb 15:39	1.233

Category	Code	Start	End	Duration
Downtime due to streamers - Recovery of Streamer #3				
Recording	DT_RC	Fri 2. Feb 15:39	Fri 2. Feb 16:24	0.750
Downtime due to streamers - Streamer Power problem found to be onboard in recording system. Streamer Re-Deployed.				
Recording	DT_RC	Fri 2. Feb 16:24	Fri 2. Feb 18:54	2.500
Downtime due to recording systems. -Re-Deployed and ramped up source.				
Weather	SB_WX	Fri 2. Feb 18:54	Fri 2. Feb 24:00	5.100
Chargeable standby due to weather. Once all gear was re-deployed the Weather was again to rough to start acquisition. Vessel is headed towards shallow water with all the gear deployed to await the weather to drop. Wind is out of the S @30-35 kts. Seas are 2-4m.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

2-Feb	Hours	% Percent
Chargeable Standby	**16.850**	**70.208**
Fishing	11.067	46.111
Weather	5.783	24.097
DownTime	**7.150**	**29.792**
Recording	3.250	13.542
Streamers	3.900	16.250
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**16.146**
Deployment	48.733	6.769
Mob Ashore	44.833	6.227
Testing	5.533	0.769
Transit to Prospect	17.150	2.382
Chargeable Standby	**78.700**	**10.931**
Fishing	11.067	1.537
Weather	67.633	9.394
Acquisition	**481.900**	**66.931**
Infill Line Change	5.083	0.706
Prime Extended L/C	1.833	0.255
Prime Line Change	105.750	14.688
Production Infill	8.000	1.111
Production Prime	361.233	50.171
DownTime	**43.150**	**5.993**
Nav Systems Onboard	18.533	2.574
Recording	3.250	0.451
Source	17.467	2.426
Streamers	3.900	0.542
Total	720.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

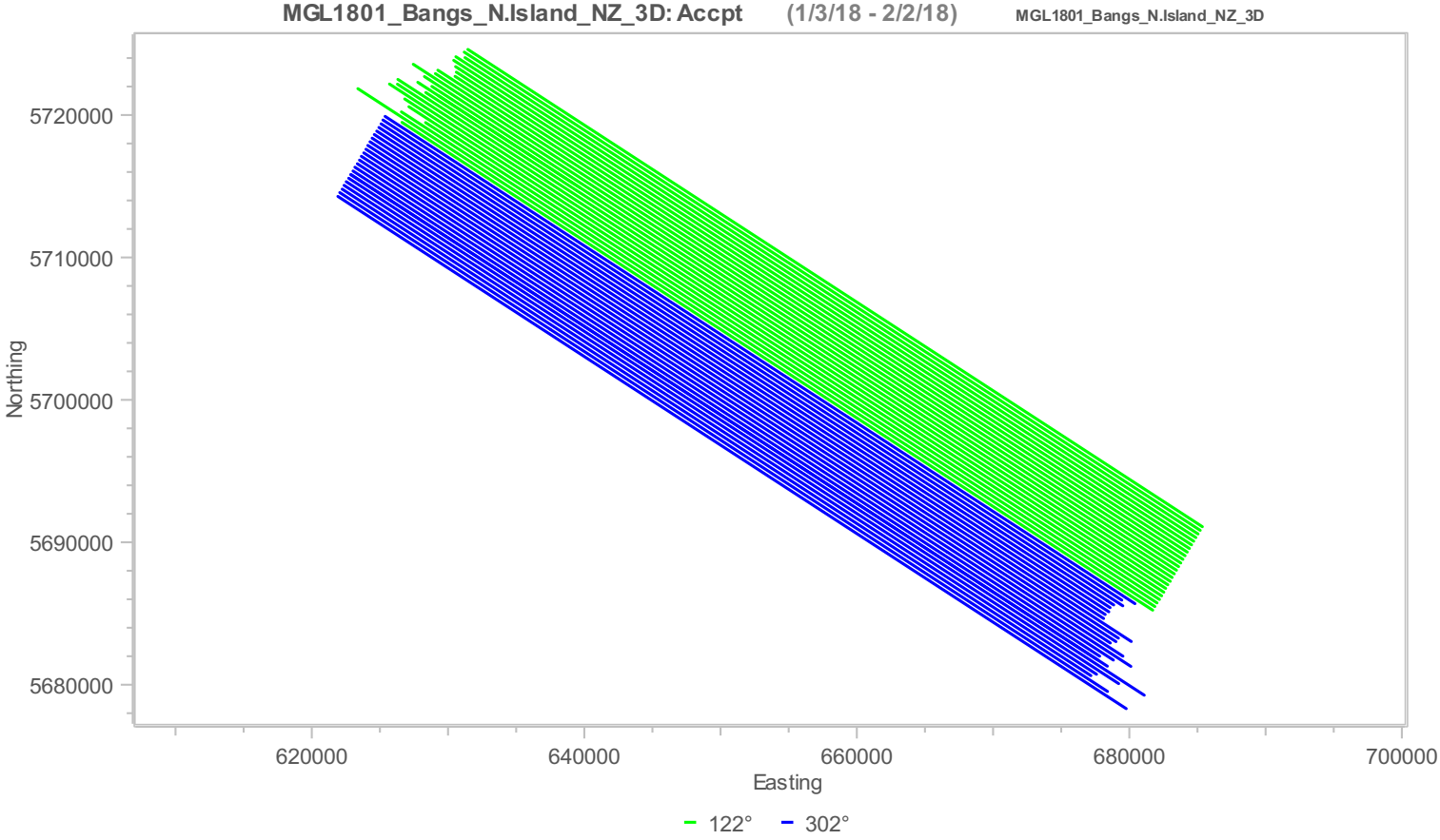
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801) (no data for period)

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					**0.00**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	287.15	0.00	3051.52
Infill	0.00	0.00	0.00	3.38
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	12.22	0.00	12.55
Combined	**0.00**	**299.38**	**0.00**	**3132.00**



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 02 Feb

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
HSN having issues remaining locked onto the satellite due to vessel movement and weather conditions

Acquisition (OBS):
Fishing Gear Removed from Streamer #3

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 02 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sat 03 Feb

The vessel started the day continuing to standby for weather. At 14:34 UTC the weather was down enough to start line I1276. This line continued until 18:11 UTC when there was a Data Telemetry issues with Streamer #4. After some brief trouble shooting Line A1276 was started at 18:25 and continued to 23:08. The vessel began a line change to line R1076 which continued throughout the day.

Daily Comment Summaries - Plan for Tomorrow

Sat 03 Feb

The Vessel will start the day on line change to Line R1076. It is hoped that the vessel will be able to get production in on R1076, R1268, and I1116 before the end of day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Weather	SB_WX	Sat 3. Feb 00:00	Sat 3. Feb 14:34	14.567
Chargeable standby due to weather. Continue Standing by for Weather.				
Production Infill	AC_PI	Sat 3. Feb 14:34	Sat 3. Feb 18:11	3.617
SOL Seq 53 Line:MGL1801I1276 Preplot:1276 FGSP=3473 FCSP=3473 Hdg=121.9° Infill EOL Seq 53 Line:MGL1801I1276 Preplot:1276 LGSP=2309 LCSP=2309 Complete				
Recording	DT_RC	Sat 3. Feb 18:11	Sat 3. Feb 18:25	0.233
Downtime due to recording systems. - Recording System Reset due to Streamer #4 data issues.				
Production Infill	AC_PI	Sat 3. Feb 18:25	Sat 3. Feb 23:08	4.717
SOL Seq 54 Line:MGL1801A1276 Preplot:1276 FGSP=2243 FCSP=2243 Hdg=121.9° Infill EOL Seq 54 Line:MGL1801A1276 Preplot:1276 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sat 3. Feb 23:08	Sat 3. Feb 24:00	0.867
Nominal Prime line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

3-Feb	Hours	% Percent
Acquisition	**9.200**	**38.333**
Prime Line Change	0.867	3.611
Production Infill	8.333	34.722
Chargeable Standby	**14.567**	**60.694**
Weather	14.567	60.694
DownTime	**0.233**	**0.972**
Recording	0.233	0.972
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**15.625**
Deployment	48.733	6.550
Mob Ashore	44.833	6.026
Testing	5.533	0.744
Transit to Prospect	17.150	2.305
Chargeable Standby	**93.267**	**12.536**
Fishing	11.067	1.487
Weather	82.200	11.048
Acquisition	**491.100**	**66.008**
Infill Line Change	5.083	0.683
Prime Extended L/C	1.833	0.246
Prime Line Change	106.617	14.330
Production Infill	16.333	2.195
Production Prime	361.233	48.553
DownTime	**43.383**	**5.831**
Nav Systems Onboard	18.533	2.491
Recording	3.483	0.468
Source	17.467	2.348
Streamers	3.900	0.524
Total	744.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

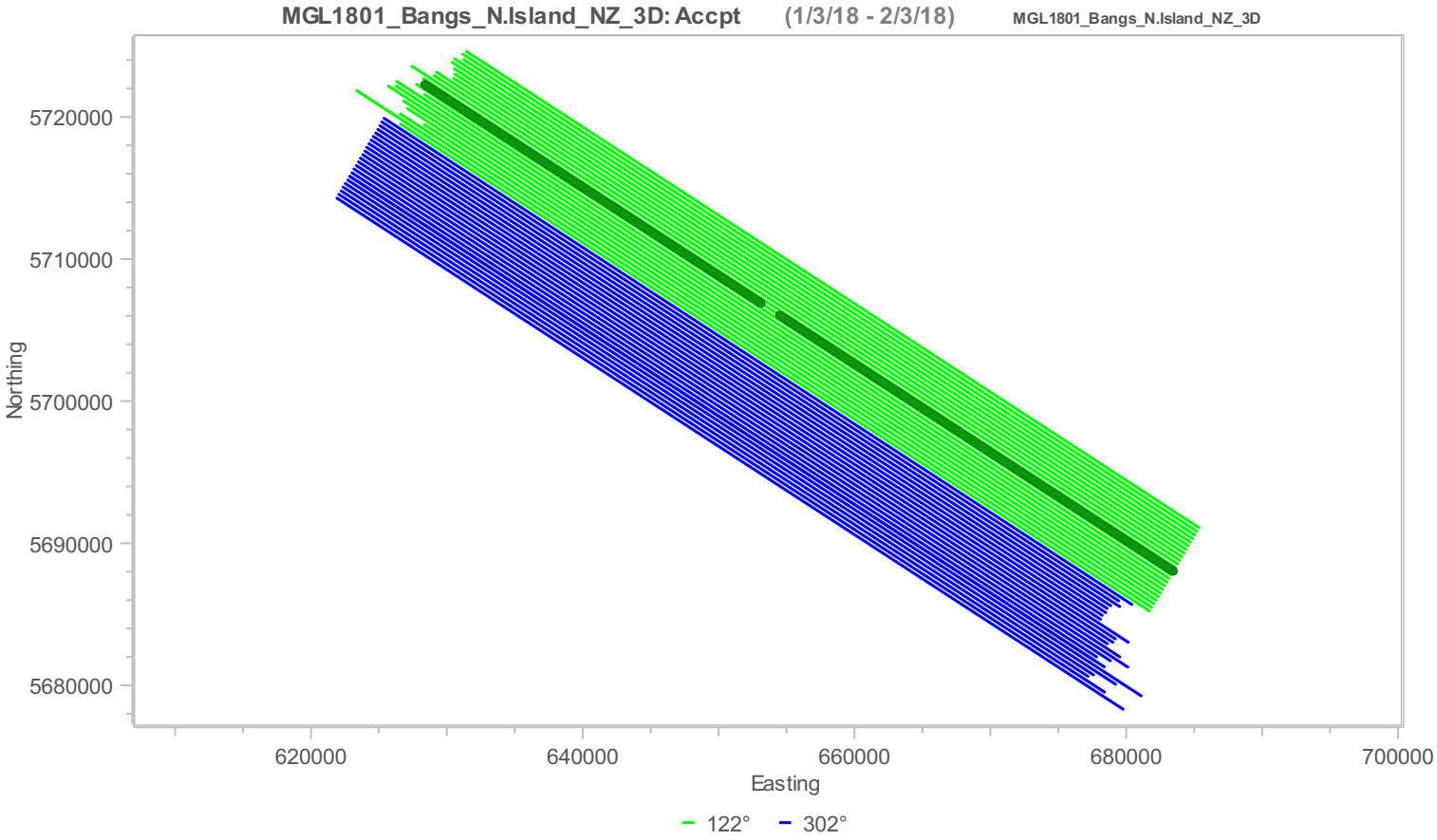
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
53	I1276	121.9	3473	2309	Infill	29.10	4.345	Complete	Complete
54	A1276	121.9	2243	879	Infill	34.10	3.904	Complete	Complete
Total						**63.20**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	287.15	0.00	3051.52
Infill	63.20	63.20	63.20	66.58
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	12.22	0.00	12.55
Combined	**63.20**	**362.57**	**63.20**	**3195.20**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 03 Feb

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
HSN having issues remaining locked onto the satellite due to vessel movement and weather conditions

Acquisition (OBS):
Streamer #4 had Telemetry issues on Line l1276, no further issues after reset.

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 03 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Sun 04 Feb

The vessel started the day on line change to line R1076 Line R1076 started at 01:57 UTC and concluded at 09:24 UTC The vessel made a line change to Line B1268, which started at 10:45 UTC and concluded at 18:34 UTC The vessel made another line change to Line I1116, which started 20:54 UTC and throughout the day.

During both Lines R1076 and I116 Streamer #4 had telemetry issues, after a single system reset the Streamer cable back both times.

Daily Comment Summaries - Plan for Tomorrow

Sun 04 Feb

The Vessel will start the day on line I1114. It is hoped that the vessel will be able to get production in on I1114, I1244, and I1004 before the end of day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Prime Line Change	AC_PLC	Sun 4. Feb 00:00	Sun 4. Feb 01:57	1.950
Nominal Prime line change.				
Production Prime	AC_PP	Sun 4. Feb 01:57	Sun 4. Feb 06:52	4.917
SOL Seq 55 Line:MGL1801R1076 Preplot:1076 FGSP=968 FCSP=968 Hdg=301.9° Prime EOL Seq 55 Line:MGL1801R1076 Preplot:1076 LGSP=2689 LCSP=2689 Incomplete				
Streamers	DT_ST	Sun 4. Feb 06:52	Sun 4. Feb 07:00	0.133
NTBP Seq 55 FSP=2690 LSP=2731 Streamer #4 dropped out- Reset of Recording system				
Production Prime	AC_PP	Sun 4. Feb 07:00	Sun 4. Feb 09:24	2.400
SOL Seq 55 Line:MGL1801R1076 Preplot:1076 FGSP=2732 FCSP=2732 Hdg=301.9° Prime EOL Seq 55 Line:MGL1801R1076 Preplot:1076 LGSP=3524 LCSP=3524 Complete				
Prime Line Change	AC_PLC	Sun 4. Feb 09:24	Sun 4. Feb 10:45	1.350
Nominal Prime line change.				
Production Prime	AC_PP	Sun 4. Feb 10:45	Sun 4. Feb 18:34	7.817
SOL Seq 56 Line:MGL1801B1268 Preplot:1268 FGSP=3383 FCSP=3383 Hdg=121.9° Prime EOL Seq 56 Line:MGL1801B1268 Preplot:1268 LGSP=879 LCSP=879 Complete				
Prime Line Change	AC_PLC	Sun 4. Feb 18:34	Sun 4. Feb 20:54	2.333
Nominal Prime line change.				
Production Prime	AC_PP	Sun 4. Feb 20:54	Sun 4. Feb 22:48	1.900
SOL Seq 57 Line:MGL1801I1116 Preplot:1116 FGSP=967 FCSP=967 Hdg=301.9° Prime EOL Seq 57 Line:MGL1801I1116 Preplot:1116 LGSP=1643 LCSP=1643 Incomplete				
Streamers	DT_ST	Sun 4. Feb 22:48	Sun 4. Feb 22:56	0.133
NTBP Seq 57 FSP=1644 LSP=1692 Streamer #4 Telemtry issues.				

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sun 4. Feb 22:56	Sun 4. Feb 24:00	1.067
SOL Seq 57 Line:MGL1801I1116 Preplot:1116 FGSP=1693 FCSP=1693 Hdg=301.9° Prime MSP Seq 57 Line:MGL1801I1116 Preplot:1116 LGSP=2068 LCSP=2068 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

4-Feb	Hours	% Percent
Acquisition	**23.733**	**98.889**
Prime Line Change	5.633	23.472
Production Prime	18.100	75.417
DownTime	**0.267**	**1.111**
Streamers	0.267	1.111
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**15.137**
Deployment	48.733	6.345
Mob Ashore	44.833	5.838
Testing	5.533	0.720
Transit to Prospect	17.150	2.233
Chargeable Standby	**93.267**	**12.144**
Fishing	11.067	1.441
Weather	82.200	10.703
Acquisition	**514.833**	**67.036**
Infill Line Change	5.083	0.662
Prime Extended L/C	1.833	0.239
Prime Line Change	112.250	14.616
Production Infill	16.333	2.127
Production Prime	379.333	49.392
DownTime	**43.650**	**5.684**
Nav Systems Onboard	18.533	2.413
Recording	3.483	0.454
Source	17.467	2.274
Streamers	4.167	0.543
Total	768.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600

MGL1801_Bangs_N.Island_NZ_3D					
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

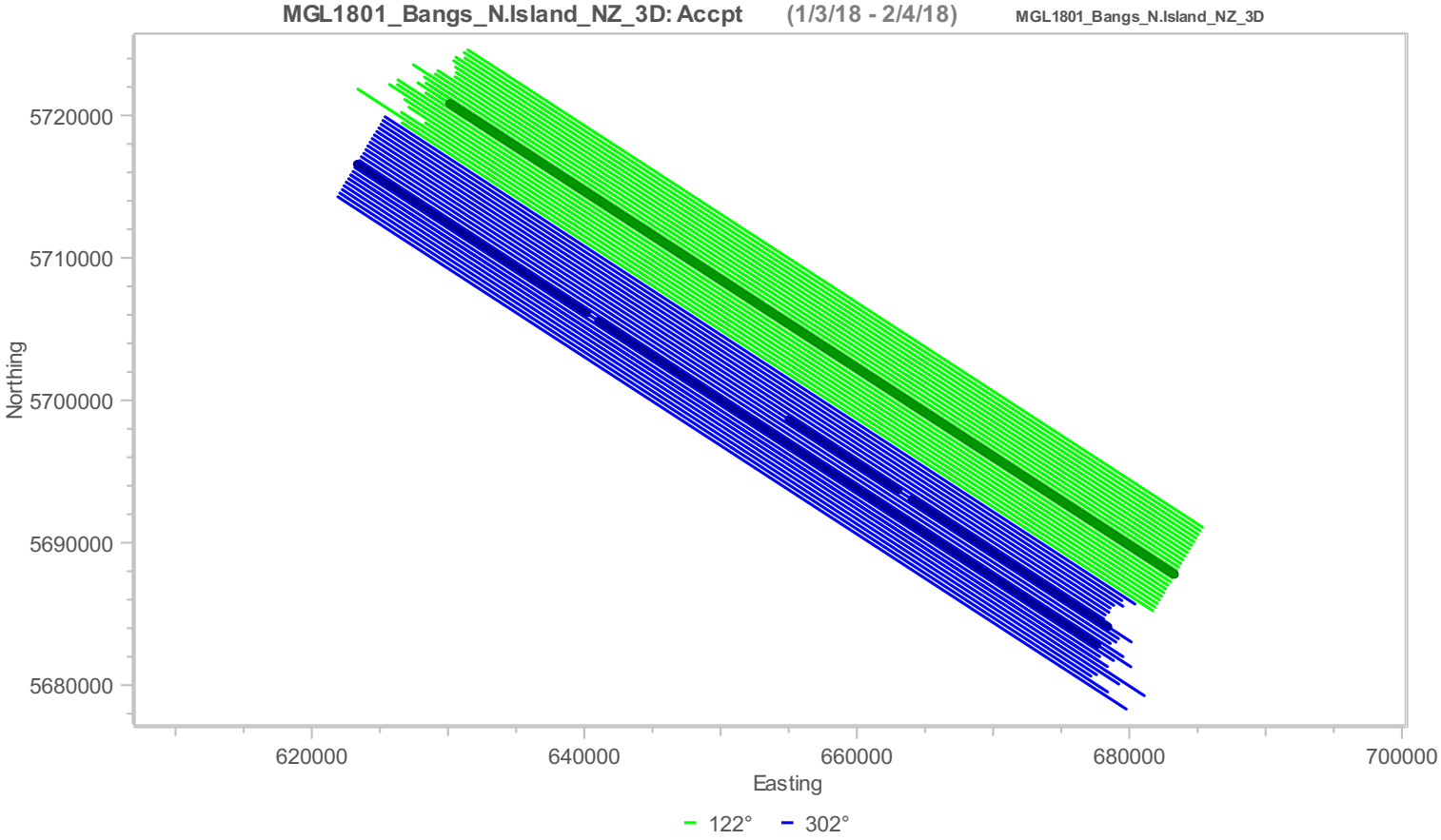
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
55	R1076	301.9	968	3524	Prime, Reshoot	62.85	2.743	Complete	Complete
NTBP: 2690 - 2731 (not chgd)									
56	B1268	121.9	3383	879	Prime, Reshoot	62.60	4.324	Complete	Complete
57	I1116	301.9	967	2068	Prime	26.30	2.837	Part	Midnight
NTBP: 1644 - 1692 (not chgd)									
Total						**151.75**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	26.30	313.45	26.30	3077.82
Infill	0.00	63.20	63.20	66.58
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	125.45	137.68	125.45	138.00
Combined	**151.75**	**514.33**	**214.95**	**3346.95**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 04 Feb

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
Streamer #4 had Telemetry issues on Lines R1076 and I1116, came back both times after a single reset.

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 04 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Mon 05 Feb

The vessel started the day on line I1116 which concluded at 04:16 UTC The vessel made a line change to Line I1244, which started at 06:11 UTC and concluded at 12:52 UTC The vessel made another line change to Line I1004, which started 15:33 UTC and concluded at 22:55 UTC. The rest of the day was spent on Line Change to Line I1188.

During both Lines I1244 and I1005 Streamer #4 had telemetry issues and need to be restarted.

Daily Comment Summaries - Plan for Tomorrow

Mon 05 Feb

The Vessel will start the day on line Line Change to I1188. It is hoped that the vessel will be able to get production in on I1188, J1004, and I1276 before the end of day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Production Infill	AC_PI	Mon 5. Feb 00:00	Mon 5. Feb 04:16	4.267
SOL Seq 57 Line:MGL1801I1116 Preplot:1116 FGSP=2069 FCSP=2069 Hdg=301.9° Infill EOL Seq 57 Line:MGL1801I1116 Preplot:1116 LGSP=3525 LCSP=3525 Complete				
Infill Line Change	AC_ILC	Mon 5. Feb 04:16	Mon 5. Feb 06:11	1.917
Nominal Infill line change.				
Production Infill	AC_PI	Mon 5. Feb 06:11	Mon 5. Feb 12:52	6.683
SOL Seq 58 Line:MGL1801I1244 Preplot:1244 FGSP=3169 FCSP=3169 Hdg=121.9° Infill EOL Seq 58 Line:MGL1801I1244 Preplot:1244 LGSP=879 LCSP=879 Complete From SP 3067 to 2986 Streamer #4 had telemtery issues.				
Infill Line Change	AC_ILC	Mon 5. Feb 12:52	Mon 5. Feb 15:33	2.683
Nominal Infill line change.				
Production Infill	AC_PI	Mon 5. Feb 15:33	Mon 5. Feb 22:55	7.367
SOL Seq 59 Line:MGL1801I1004 Preplot:1004 FGSP=963 FCSP=963 Hdg=301.9° Infill EOL Seq 59 Line:MGL1801I1004 Preplot:1004 LGSP=3524 LCSP=3524 Complete From SP 2038 - 2069 and SP 2438 - 2521 Streamer #4 had data telemetry issues.				
Infill Line Change	AC_ILC	Mon 5. Feb 22:55	Mon 5. Feb 24:00	1.083
Nominal Infill line change.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

5-Feb	Hours	% Percent
Acquisition	**24.000**	**100.000**
Infill Line Change	5.683	23.681
Production Infill	18.317	76.319
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**14.678**
Deployment	48.733	6.153
Mob Ashore	44.833	5.661
Testing	5.533	0.699
Transit to Prospect	17.150	2.165
Chargeable Standby	**93.267**	**11.776**
Fishing	11.067	1.397
Weather	82.200	10.379
Acquisition	**538.833**	**68.035**
Infill Line Change	17.267	2.180
Prime Extended L/C	1.833	0.231
Prime Line Change	105.750	13.352
Production Infill	37.617	4.750
Production Prime	376.367	47.521
DownTime	**43.650**	**5.511**
Nav Systems Onboard	18.533	2.340
Recording	3.483	0.440
Source	17.467	2.205
Streamers	4.167	0.526
Total	792.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

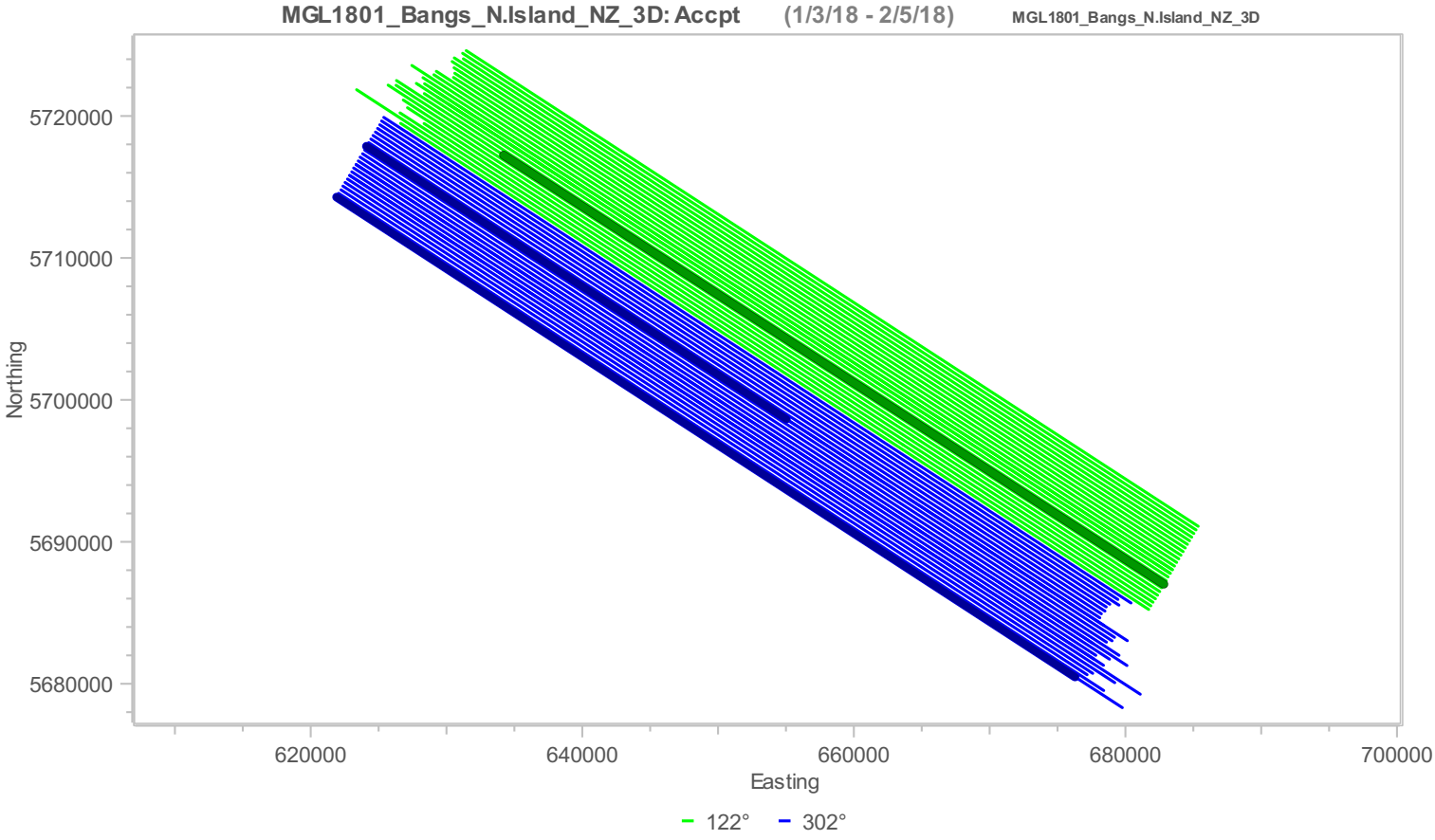
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
57	I1116	301.9	2069	3525	Infill	36.43	4.610	Complete	Complete
58	I1244	121.9	3169	879	Infill	57.25	4.625	Complete	Complete
59	I1004	301.9	963	3524	Infill	64.03	4.693	Complete	Complete
Total						**157.70**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	3051.52
Infill	157.70	157.70	247.20	250.58
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	0.00	125.45	138.00
Combined	**157.70**	**157.70**	**372.65**	**3504.65**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 05 Feb

Navigation:
PosNET - Tailbuoy (TB) #2 and TB #3 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During both Lines l1244 and l1005 Streamer #4 had telemetry issues and need to be restarted.

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 05 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Tue 06 Feb

The vessel started the day on line change to line I1188 which started at 00:42 UTC and concluded at 04:16 UTC The vessel made a line change to Line A1004, which started at 10:42 UTC and concluded at 18:02 UTC The vessel made another line change to Line I1276, which started 19:56 UTC and was aborted at 20:50 UTC, due to lose of Bird and acoustic communication. As Streamer #1 had the last remaining rGPS pod working and we had no communication with the Acoustic PODS we could no longer accurately position the towed equipment. Addition with no bird communication we can on see or control the depth of the streamer. For these reason it was decided to recover all the towed equipment. At 21:09 UTC the Source Started up and by 22:33 UTC Streamer 1 and 2's front ends were being recovered to disconnect streamer #2 from the Separation rope an begin recovery of the towed equipment. At 23:32 UTC streamer #2 recovery had began an continued through the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Tue 06 Feb

The Vessel will start the day continuing the recovery of the towed equipment and by end of day should have everything on-board an be transiting to Napier.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Infill Line Change	AC_ILC	Tue 6. Feb 00:00	Tue 6. Feb 00:42	0.700
Nominal Infill line change.				
Production Infill	AC_PI	Tue 6. Feb 00:42	Tue 6. Feb 08:18	7.600
SOL Seq 60 Line:MGL1801I1188 Preplot:1188 FGSP=3379 FCSP=3379 Hdg=121.9° Infill EOL Seq 60 Line:MGL1801I1188 Preplot:1188 LGSP=879 LCSP=879 Complete				
Infill Line Change	AC_ILC	Tue 6. Feb 08:18	Tue 6. Feb 10:42	2.400
Nominal Infill line change.				
Production Infill	AC_PI	Tue 6. Feb 10:42	Tue 6. Feb 18:02	7.333
SOL Seq 61 Line:MGL1801A1004 Preplot:1004 FGSP=974 FCSP=974 Hdg=301.9° Infill EOL Seq 61 Line:MGL1801A1004 Preplot:1004 LGSP=3524 LCSP=3524 Complete				
Infill Line Change	AC_ILC	Tue 6. Feb 18:02	Tue 6. Feb 19:56	1.900
Nominal Infill line change.				
Streamers	DT_ST	Tue 6. Feb 19:56	Tue 6. Feb 20:50	0.900
NTBP Seq 62 FSP=3491 LSP=3195 Streamer #1 bird line failed shortly into the line. Line was aborted and recovery of towed equipment was began.				
Recovery	DM_RC	Tue 6. Feb 20:50	Tue 6. Feb 22:18	1.467
Demobilising offshore, recovering outboard equipment. Recovery of Source				
Recovery	DM_RC	Tue 6. Feb 22:18	Tue 6. Feb 23:32	1.233
Demobilising offshore, recovering outboard equipment. Recovery of the Front Ends of Streamer 1 and Streamer 2				
Recovery	DM_RC	Tue 6. Feb 23:32	Tue 6. Feb 24:00	0.467
Demobilising offshore, recovering outboard equipment. Recovery of Streamer #2				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

6-Feb	Hours	% Percent
Acquisition	**19.933**	**83.056**
Infill Line Change	5.000	20.833
Production Infill	14.933	62.222
Demobilisation	**3.167**	**13.194**
Recovery	3.167	13.194
DownTime	**0.900**	**3.750**
Streamers	0.900	3.750
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**14.246**
Deployment	48.733	5.972
Mob Ashore	44.833	5.494
Testing	5.533	0.678
Transit to Prospect	17.150	2.102
Chargeable Standby	**93.267**	**11.430**
Fishing	11.067	1.356
Weather	82.200	10.074
Acquisition	**558.767**	**68.476**
Infill Line Change	22.267	2.729
Prime Extended L/C	1.833	0.225
Prime Line Change	105.750	12.960
Production Infill	52.550	6.440
Production Prime	376.367	46.123
DownTime	**44.550**	**5.460**
Nav Systems Onboard	18.533	2.271
Recording	3.483	0.427
Source	17.467	2.141
Streamers	5.067	0.621
Demobilisation	**3.167**	**0.388**
Recovery	3.167	0.388
Total	816.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600

MGL1801_Bangs_N.Island_NZ_3D					
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

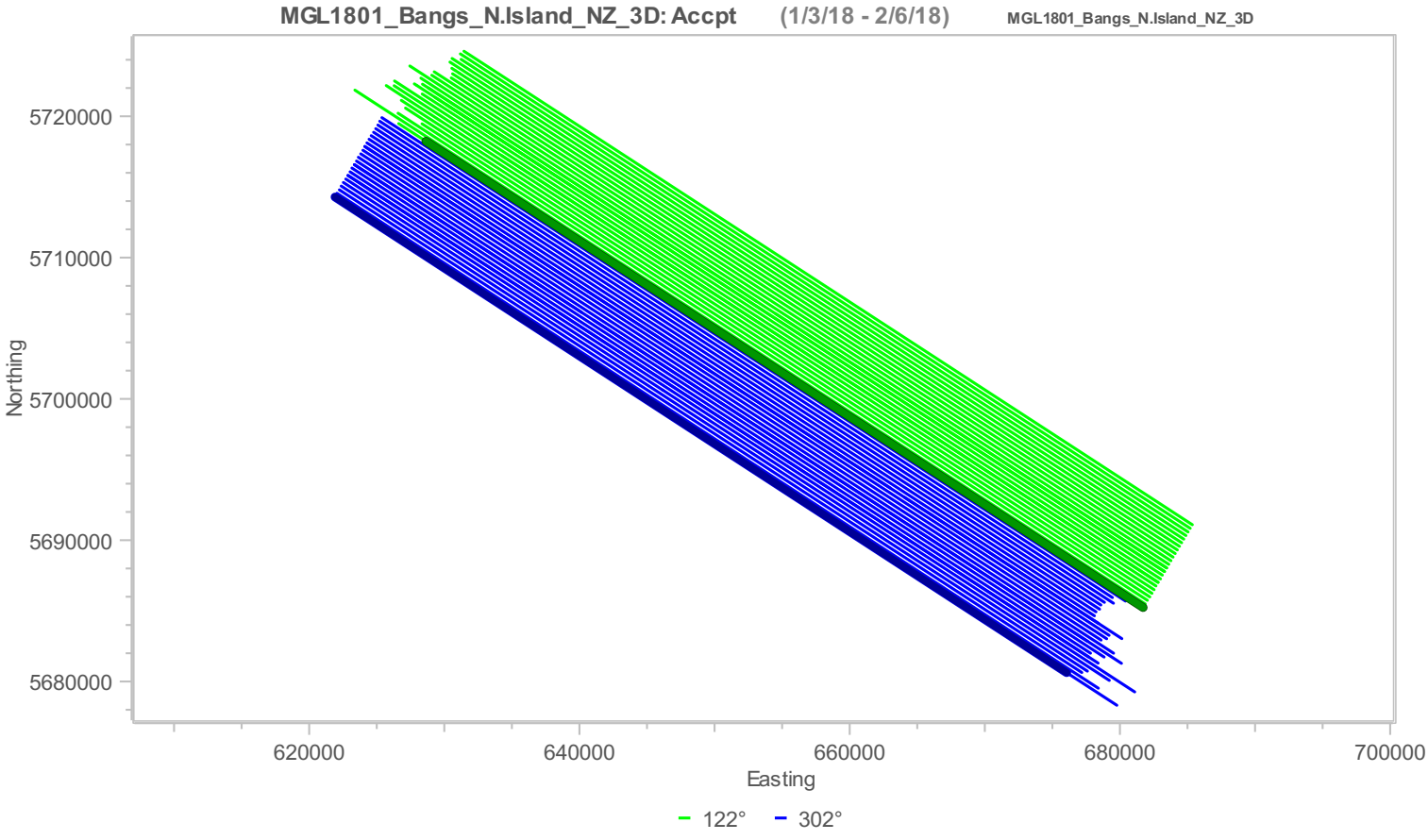
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
60	I1188	121.9	3379	879	Infill	62.50	4.440	Complete	Complete
61	A1004	301.9	974	3524	Infill	63.75	4.694	Complete	Complete
62	B1276	121.9	N/A	N/A	Prime	0.00	N/A	NTBP	NTBP
NTBP: 3491 - 3195 (not chgd)									
Total						**126.25**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	3051.52
Infill	126.25	283.95	373.45	376.83
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	0.00	125.45	138.00
Combined	**126.25**	**283.95**	**498.90**	**3630.90**



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 06 Feb

Navigation:
PosNET - Tailbuoy (TB) #2, TB #3, and TB#4 not operational.

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During Line B1276 - Streamer #1 bird and acoustic line failed.

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 06 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Wed 07 Feb

The vessel started the day on continuing to recovery of the towed equipment. At 21:45 UTC all equipment was on-board and the vessel was on its way to Napier, NZ to begin the Demobilization from MGL1801.

Daily Comment Summaries - Plan for Tomorrow

Wed 07 Feb

The Vessel will start the day transiting to Napier, NZ to begin Demobilizing from MGL1801. At ~06:00 UTC the vessel will arrive in Napier, NZ

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Recovery	DM_RC	Wed 7. Feb 00:00	Wed 7. Feb 02:32	2.533
Demobilising offshore, recovering outboard equipment. Recovery of Streamer #2				
Recovery	DM_RC	Wed 7. Feb 02:32	Wed 7. Feb 07:50	5.300
Demobilising offshore, recovering outboard equipment. -Recovery of Streamer #1				
Recovery	DM_RC	Wed 7. Feb 07:50	Wed 7. Feb 09:43	1.883
Demobilising offshore, recovering outboard equipment. - Recovery Streamer 3 and 4 as well as Port Barovane to disconnect Streamer #3 from separation rope.				
Recovery	DM_RC	Wed 7. Feb 09:43	Wed 7. Feb 14:00	4.283
Demobilising offshore, recovering outboard equipment.				
Recovery	DM_RC	Wed 7. Feb 14:00	Wed 7. Feb 16:35	2.583
Demobilising offshore, recovering outboard equipment. - Recovery and securing of Port Barovane				
Recovery	DM_RC	Wed 7. Feb 16:35	Wed 7. Feb 17:37	1.033
Demobilising offshore, recovering outboard equipment. - Recovery of Streamer #4				
Vessel	DT_VE	Wed 7. Feb 17:37	Wed 7. Feb 19:31	1.900
Downtime due to vessel. - Hydraulic Leak on Streamer #4 Hydraulic Control Valves				
Recovery	DM_RC	Wed 7. Feb 19:31	Wed 7. Feb 21:45	2.233
Demobilising offshore, recovering outboard equipment. - Continue recovery of Streamer #4				
Transit From Prospect	DM_TF	Wed 7. Feb 21:45	Wed 7. Feb 24:00	2.250
Demobilising, In Transit from prospect for demobilisation ashore in Napier, NZ.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

7-Feb	Hours	% Percent
Demobilisation	**22.100**	**92.083**
Recovery	19.850	82.708
Transit From Prospect	2.250	9.375
DownTime	**1.900**	**7.917**
Vessel	1.900	7.917
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Mobilisation	**116.250**	**13.839**
Deployment	48.733	5.802
Mob Ashore	44.833	5.337
Testing	5.533	0.659
Transit to Prospect	17.150	2.042
Chargeable Standby	**93.267**	**11.103**
Fishing	11.067	1.317
Weather	82.200	9.786
Acquisition	**558.767**	**66.520**
Infill Line Change	22.267	2.651
Prime Extended L/C	1.833	0.218
Prime Line Change	105.750	12.589
Production Infill	52.550	6.256
Production Prime	376.367	44.806
DownTime	**46.450**	**5.530**
Nav Systems Onboard	18.533	2.206
Recording	3.483	0.415
Source	17.467	2.079
Streamers	5.067	0.603
Vessel	1.900	0.226
Demobilisation	**25.267**	**3.008**
Recovery	23.017	2.740
Transit From Prospect	2.250	0.268
Total	840.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D					
General Details					
Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

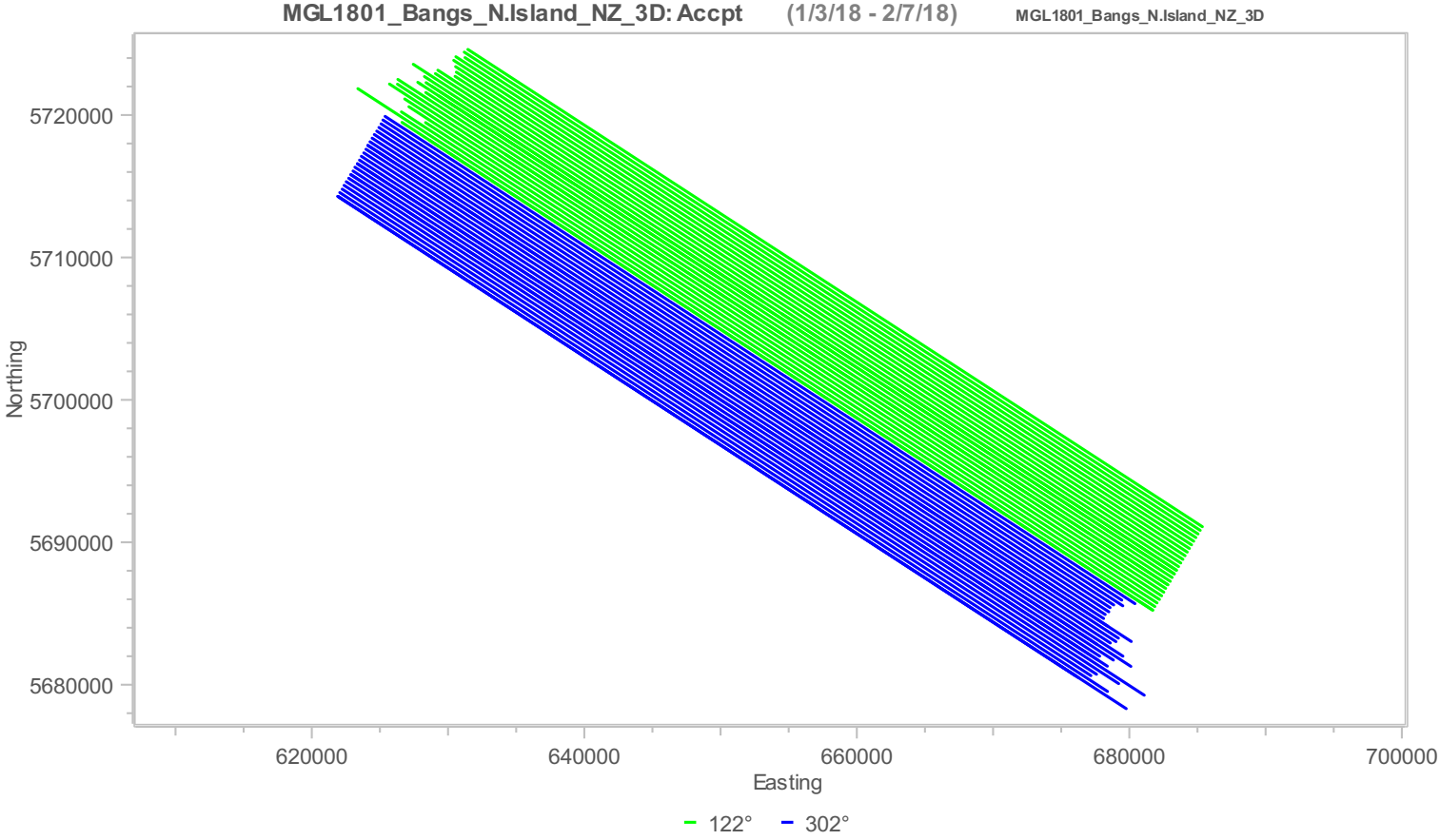
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801) (no data for period)

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					**0.00**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	3051.52
Infill	0.00	283.95	373.45	376.83
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	0.00	125.45	138.00
Combined	**0.00**	**283.95**	**498.90**	**3630.90**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 07 Feb

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
During recovery issues with streamer reel #4's auxiliary controls caused ~2hr delay in the recovery.

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Wed 07 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student

Daily Science Report

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1801	**Job No:**	MGL1801
Block:	MGL1801_Bangs_N.Island_NZ_3D	**Vessel:**	Marcus G Langseth
Client Contact:	Nathan Bangs	**Supervisor:**	Sean Higgins
Consultancy:		**Party Chiefs:**	Robert J Steinhaus/David Martinson/Todd Jensvold
Job No:		**Client Reps:**	

Daily Comment Summaries - Daily Summary

Thu 08 Feb

The vessel started the day on continuing transit to Napier, NZ to begin the Demobilization from MGL1801. At 07:30 UTC the arrived alongside the Port of Napier's Pier 3 East and remained here throughout the rest of the day.

Daily Comment Summaries - Plan for Tomorrow

Thu 08 Feb

The Vessel will start the day alongside the Port of Napier's Pier 3 East, which it remained throughout the rest of the day.

Timing Diary (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Code	Start	End	Duration
Transit From Prospect	DM_TF	Thu 8. Feb 00:00	Thu 8. Feb 07:30	7.500
Demobilising, In Transit from prospect for demobilisation ashore in Napier, NZ.				
Demob Ashore	DM_DA	Thu 8. Feb 07:30	Thu 8. Feb 24:00	16.500
Demobilising ashore.				

Timing Day By Day (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

8-Feb	Hours	% Percent
Demobilisation	**24.000**	**100.000**
Demob Ashore	16.500	68.750
Transit From Prospect	7.500	31.250
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1801_Bangs_N.Island_NZ_3D)

Category	Hours	% Percent
Demobilisation	**49.267**	**5.702**
Demob Ashore	16.500	1.910
Recovery	23.017	2.664
Transit From Prospect	9.750	1.128
Mobilisation	**116.250**	**13.455**
Deployment	48.733	5.640
Mob Ashore	44.833	5.189
Testing	5.533	0.640
Transit to Prospect	17.150	1.985
Chargeable Standby	**93.267**	**10.795**
Fishing	11.067	1.281
Weather	82.200	9.514
Acquisition	**558.767**	**64.672**
Infill Line Change	22.267	2.577
Prime Extended L/C	1.833	0.212
Prime Line Change	105.750	12.240
Production Infill	52.550	6.082
Production Prime	376.367	43.561
DownTime	**46.450**	**5.376**
Nav Systems Onboard	18.533	2.145
Recording	3.483	0.403
Source	17.467	2.022
Streamers	5.067	0.586
Vessel	1.900	0.220
Total	864.000	

Basic Project Details

MGL1801_Bangs_N.Island_NZ_3D

General Details

Record length:	9500 ms	Sample rate:	2 ms	Shotpoint interval:	25 m
CoS to CNG:	175 m	Fold Coverage:	117		

MGL1801_Bangs_N.Island_NZ_3D					
Cable Details					
No of Cables:	4	Head Separation:	150 m	Tail Separation:	150 m
Chans Per Cable:	468	Front Depth:	8 m	Tail Depth:	8 m
Length:	5850 m	Group interval:	12.5 m		
Source Details					
No of Sources:	2	Separation:	75 m	Total Volume:	9900 cu ins
Source 1					
Depth:	7 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	2	String Separation:	8 m	String length:	18 m
Source 2					
Depth:	7 m	Pressure:	2000 PSI	Volume:	3300
Strings per source:	2	String Separation:	8 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	37.5 m		

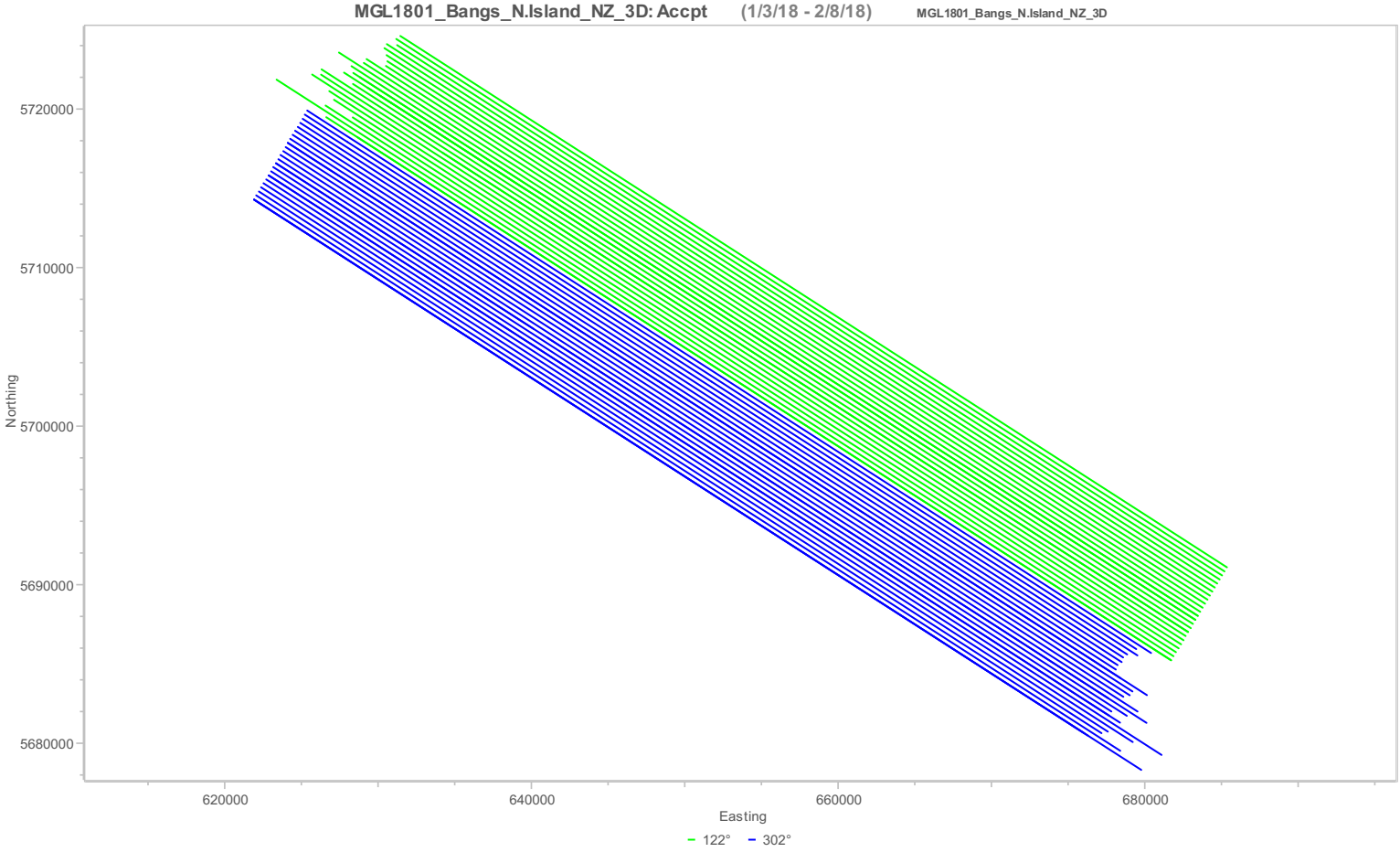
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1801_Bangs_N.Island_NZ_3D (MGL1801) (no data for period)

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					**0.00**			

Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	3051.52
Infill	0.00	283.95	373.45	376.83
Infill, Progressive	0.00	0.00	0.00	64.55
Prime, Reshoot	0.00	0.00	125.45	138.00
Combined	**0.00**	**283.95**	**498.90**	**3630.90**



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 08 Feb

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
No Major Issues to Report

Towing and Handling (Source):
No Major Issues to Report

General Purpose Science:
No Major Issues to Report

Miscellaneous:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Thu 08 Feb

Technical Staff On-board the Langseth

Robert Steinhaus	L-DEO OMO	Chief Science Officer
David Martinson	L-DEO OMO	Science Officer
Todd Jensvold	L-DEO OMO	Science Officer
Tom Spoto	L-DEO OMO	Chief Source Mechanic
Alan Thompson	L-DEO OMO	Marine Science Technician - Nav
Gilles Guerin	L-DEO OMO	Marine Science Technician - Acq
Josh Kasinger	L-DEO OMO	Marine Sceince Technician - Source
Andrew Davey	Atlas Personnel	Marine Science Technician (Source)
Dean Addison	Atlas Personnel	Marine Science Technician (Source)
Graham Goddard	Atlas Personnel	Marine Science Technician (Source/Compressor)
Everett Cloessner	NCS SubSea	Marine Science Technician (Nav Processor)
Mark Riddle	NCS SubSea	Marine Science Technician (Nav Processor)

PSO Staff On-board the Langseth

Amanda Dubuque	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO
Rebecca Elizabeth Lindsay	RPS	PSO
Mark Johnson	RPS	PSO

Science Party On-board the Langseth

Nathan Bangs	Chief Scientist
Shuoshuo Han	Scientist
Tim Reston	Scientist
Dan Barker	Scientist
Harold Tobin	Scientist
Ryuta Aral	Scientist
Hannah Tilley	Postdoc
Joel Edwards	Student
Stephen Ball	Student
Harry Lench	Student
Melissa Gray	Student