Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Fri 16 Feb

The Vessel spent the day alongside Victoria T/U Pier in Dunedin, NZ begging Mobilization for MGL1803.

Focus for today was:
1. Completing All pre-cruise paperwork.
2. Cleaning and Securing Lab Spaces
3. Science Party Joining the vessel
4. Moving of PV2000's and Tailbuoy's off Main Deck to OBS deck

Daily Comment Summaries - Plan for Tomorrow

Fri 16 Feb

The Vessel will remain alongside the Victoria T/U pier in Dunedin, NZ mobilizing for MGL1803.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Mob Ashore	MB_MA	Fri 16. Feb 00:00	Fri 16. Feb 24:00	24.000
Mobilising Ashore.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

16-Feb	Hours	%Percent
Mobilisation	**24.000**	**100.000**
Mob Ashore	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

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

Fri 16 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

Daily Comment Summaries - Personnel Onboard

Fri 16 Feb

Technical Staff On-board the Langseth

Participant	Group/Affiliation	Position
Robert Steinhaus	L-DEO OMO	Chief 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
Andrew Davey	Contract Personnel	Marine Science Technician (Source)
Dean Addison	Contract Personnel	Marine Science Technician (Source)
Grahan Gooddard	Contract Personnel	Marine Science Technician (Source/Compressor)
Clive Dugdale	Contract Personnel	Marine Science Technician (Observer)

PSO Staff On-board the Langseth

Participant	Group/Affiliation	Position
Amanda Dubuque (F)	RPS	Lead PSO
Sara Davis	RPS	PAM operator / PSO
Brooke Stanford	RPS	PSO / PAM operator
Gaul Begbie	RPS	PSO / PAM operator
Aletta Bussenschutt	RPS	PSO

Science Party On-board the Langseth
Starting to move on the vessel now.

Daily Science Report

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Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sat 17 Feb

The Vessel spent the day alongside Victoria T/U Pier in Dunedin, NZ continuing Mobilization for MGL1803.

Focus for today was:
1. Cleaning and Securing Lab Spaces
2. Continue w/ Science Party Joining the vessel and getting them setup onboard.
3. Continuing work on Tailbuoy #1 to convert it back into Long Range mode.
4. Completed Inspection of Science Workboat.
5. Re-building of all Source Element Solenoids.

Daily Comment Summaries - Plan for Tomorrow

Sat 17 Feb

The Vessel will remain alongside the Victoria T/U pier in Dunedin, NZ mobilizing for MGL1803, until about 19:00 UTC. At which time the vessel will get underway for the survey area and is expected to take departure (Seabuoy) at ~21:00 UTC. At that time all underway science systems will be brought online for the transit down to the first OBS (OBS101) deployment site. Plan on completing the Welcome Aboard Safety Meeting at 02:00 UTC.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Mob Ashore	MB_MA	Sat 17. Feb 00:00	Sat 17. Feb 24:00	24.000
Mobilising Ashore.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

17-Feb	Hours	%Percent
Mobilisation	**24.000**	**100.000**
Mob Ashore	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
Mobilisation	**48.000**	**100.000**
Mob Ashore	48.000	100.000
Total	48.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 17 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

Daily Comment Summaries - Personnel Onboard

Sat 17 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc student

Daily Science Report

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Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sun 18 Feb

The Vessel spent the day alongside Victoria T/U Pier in Dunedin, NZ continuing Mobilization for MGL1803. At 19:10 UTC the vessel got underway for MGL1803 survey area and OBS101's deployment location. The vessel remained in transit throughout the remainder of the day.

Focus for today was:
1. Cleaning and Securing Lab Spaces
2. Continue w/ Science Party setup onboard.
3. Science Party Welcome Aboard Safety Briefing was held from 02:00 UTC to 03:00 UTC, followed by a ships safety tour.
4. Re-building of all Source Element Solenoids.
5. Ships Emergency/Fire and Abandon Ship drill held at 23:30 UTC

Daily Comment Summaries - Plan for Tomorrow

Sun 18 Feb

Will remain in transit to OBS101 Deployment site throughout the remainder of the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Mob Ashore	MB_MA	Sun 18. Feb 00:00	Sun 18. Feb 19:10	19.167
Mobilising Ashore.				
Transit to Prospect	MB_TT	Sun 18. Feb 19:10	Sun 18. Feb 24:00	4.833
In transit to prospect, for mobilising deployment. Transiting to OBS101 Deployment loction.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

18-Feb	Hours	%Percent
Mobilisation	**24.000**	**100.000**
Mob Ashore	19.167	79.861
Transit to Prospect	4.833	20.139
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
Mobilisation	**72.000**	**100.000**
Mob Ashore	67.167	93.287
Transit to Prospect	4.833	6.713
Total	72.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 18 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

Daily Comment Summaries - Personnel Onboard

Sun 18 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc student

Daily Science Report

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Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Mon 19 Feb

The Vessel spent the day in transit to MGL1803 survey area and OBS101's deployment location.

Focus for today was:
1. Monitoring Underway Systems
2. Continuing work on Long Range TB.
3. Updating Layout Sheets
2. Making Adjustments to the In house built quick release.
3. Making rounds to ensure all equipment remains secure on deck and in the lab spaces.

Daily Comment Summaries - Plan for Tomorrow

Mon 19 Feb

At the start of the day the vessel will continue in transit to OBS101 Deployment site. It is expected to arrive on site at ~13:00 UTC and will continue with OBS deployments throughout the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Transit to Prospect	MB_TT	Mon 19. Feb 00:00	Mon 19. Feb 24:00	24.000
In transit to prospect, for mobilising deployment. Transiting to OBS101 Deployment loction.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

19-Feb	Hours	% Percent
Mobilisation	**24.000**	**100.000**
Transit to Prospect	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
Mobilisation	**96.000**	**100.000**
Mob Ashore	67.167	69.965
Transit to Prospect	28.833	30.035
Total	96.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					

MGL1803_SISIE_Gurnis_S. Island_NZ					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

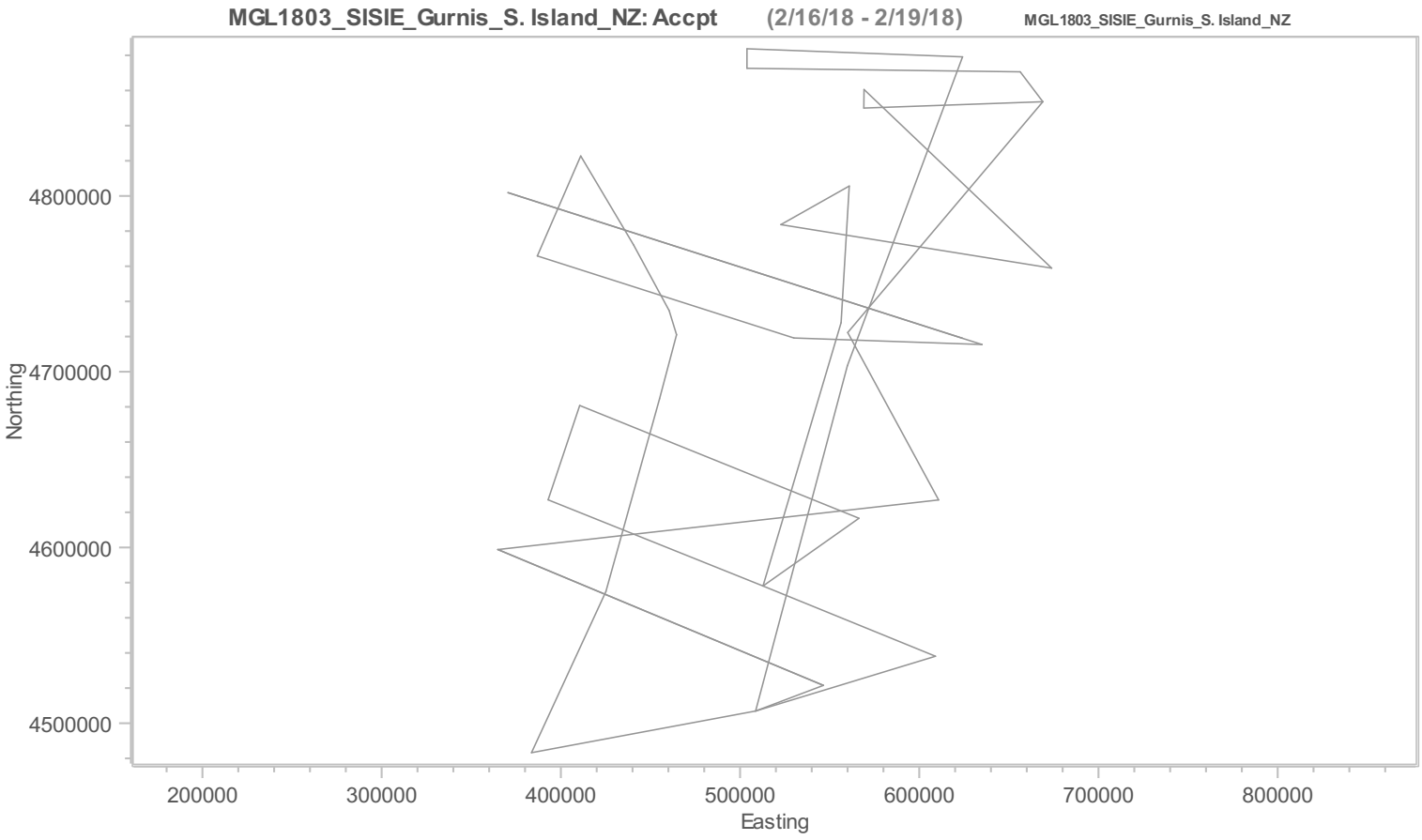
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (no data for period)

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

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

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 Comment Summaries - Daily Comments On Status of Equipment

Mon 19 Feb

Navigation:
No Major Issues to Report

Information Technology (IT):
HSN failure at ~16:22 UTC. After some trouble shooting it was found that the C-Band Codex had blown a fuse. All voltages were checked before the fuse was replaced. HSN was back up at 19:40 UTC.

Acquisition (OBS):
No Major Issues to Report

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

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 19 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc student

Daily Science Report

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Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Tue 20 Feb

The Vessel started he day in transit to MGL1803 survey area and OBS101's deployment location. At 13:23 UTC the vessel arrived at the OBS101's Deployment site and began deployment operations. By the end of the day the vessel had Deployed OBS101 to OBS113.

Daily Comment Summaries - Plan for Tomorrow

Tue 20 Feb

At the start of the day the vessel will continue deploying OBS and is expected to completed deployment operations by ~10:00 UTC. At that time the crew will deploy the Seismic Source an it is hope that by 14:00 UTC the vessel is in production on Line MGL1803OBS01 headed to the Northwest.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Transit to Prospect	MB_TT	Tue 20. Feb 00:00	Tue 20. Feb 13:06	13.100
In transit to prospect, for mobilising deployment. Transiting to OBS101 Deployment loction.				
Deployment	MB_DP	Tue 20. Feb 13:06	Tue 20. Feb 13:31	0.417
Deployment of OBS101				
Transit	SB_TRT	Tue 20. Feb 13:31	Tue 20. Feb 14:18	0.783
Transit to OBS102 Deployment Site				
Deployment	MB_DP	Tue 20. Feb 14:18	Tue 20. Feb 14:28	0.167
Deployment of OBS102				
Transit	SB_TRT	Tue 20. Feb 14:28	Tue 20. Feb 15:18	0.833
Transit to OBS103's Deployment Site				
Deployment	MB_DP	Tue 20. Feb 15:18	Tue 20. Feb 15:30	0.200
Deployment of OBS103				
Transit	SB_TRT	Tue 20. Feb 15:30	Tue 20. Feb 16:16	0.767
Transit to OBS104's Deployment Site.				
Deployment	MB_DP	Tue 20. Feb 16:16	Tue 20. Feb 16:23	0.117
Deployment of OBS104				
Transit	SB_TRT	Tue 20. Feb 16:23	Tue 20. Feb 17:12	0.817
Transit to OBS105's Deployment Site				
Deployment	MB_DP	Tue 20. Feb 17:12	Tue 20. Feb 17:24	0.200
Deployment of OBS105				
Transit	SB_TRT	Tue 20. Feb 17:24	Tue 20. Feb 18:06	0.700
Transit to OBS106's Deployment Site.				
Deployment	MB_DP	Tue 20. Feb 18:06	Tue 20. Feb 18:13	0.117
Deployment of OBS#6				
Transit	SB_TRT	Tue 20. Feb 18:13	Tue 20. Feb 18:58	0.750
Transit to OBS107's Deployment Site.				
Deployment	MB_DP	Tue 20. Feb 18:58	Tue 20. Feb 19:04	0.100
Deployment of OBS107				
Transit	SB_TRT	Tue 20. Feb 19:04	Tue 20. Feb 19:44	0.667
Transit to OBS108's Deployment Location				
Deployment	MB_DP	Tue 20. Feb 19:44	Tue 20. Feb 19:50	0.100
Deployment of OBS108				
Transit	SB_TRT	Tue 20. Feb 19:50	Tue 20. Feb 20:30	0.667
Transit to OBS109's Deployment Location				
Deployment	MB_DP	Tue 20. Feb 20:30	Tue 20. Feb 20:43	0.217
Deployment of OBS109				
Transit	SB_TRT	Tue 20. Feb 20:43	Tue 20. Feb 21:23	0.667
Transiting to OBS110's Deployment Location.				
Deployment	MB_DP	Tue 20. Feb 21:23	Tue 20. Feb 21:30	0.117
Deployment of OBS110				
Transit	SB_TRT	Tue 20. Feb 21:30	Tue 20. Feb 22:11	0.683
Transit to OBS111's Deployment Site				
Deployment	MB_DP	Tue 20. Feb 22:11	Tue 20. Feb 22:18	0.117
Deploiying OBS111				
Transit	SB_TRT	Tue 20. Feb 22:18	Tue 20. Feb 22:59	0.683
Transit to OBS112's Deployment Site				
Deployment	MB_DP	Tue 20. Feb 22:59	Tue 20. Feb 23:07	0.133
Deploying OBS112				
Transit	SB_TRT	Tue 20. Feb 23:07	Tue 20. Feb 23:49	0.700
Transit to OBS113's Deployment Site				
Deployment	MB_DP	Tue 20. Feb 23:49	Tue 20. Feb 23:55	0.100
Deploying OBS113				
Transit	SB_TRT	Tue 20. Feb 23:55	Tue 20. Feb 24:00	0.083
Transiting to OBS114's Deployment Site				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

20-Feb	Hours	% Percent
Chargeable Standby	**8.800**	**36.667**
Transit	8.800	36.667
Mobilisation	**15.200**	**63.333**
Deployment	2.100	8.750
Transit to Prospect	13.100	54.583
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
Mobilisation	**111.200**	**92.667**
Deployment	2.100	1.750
Mob Ashore	67.167	55.972
Transit to Prospect	41.933	34.944
Chargeable Standby	**8.800**	**7.333**
Transit	8.800	7.333
Total	120.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

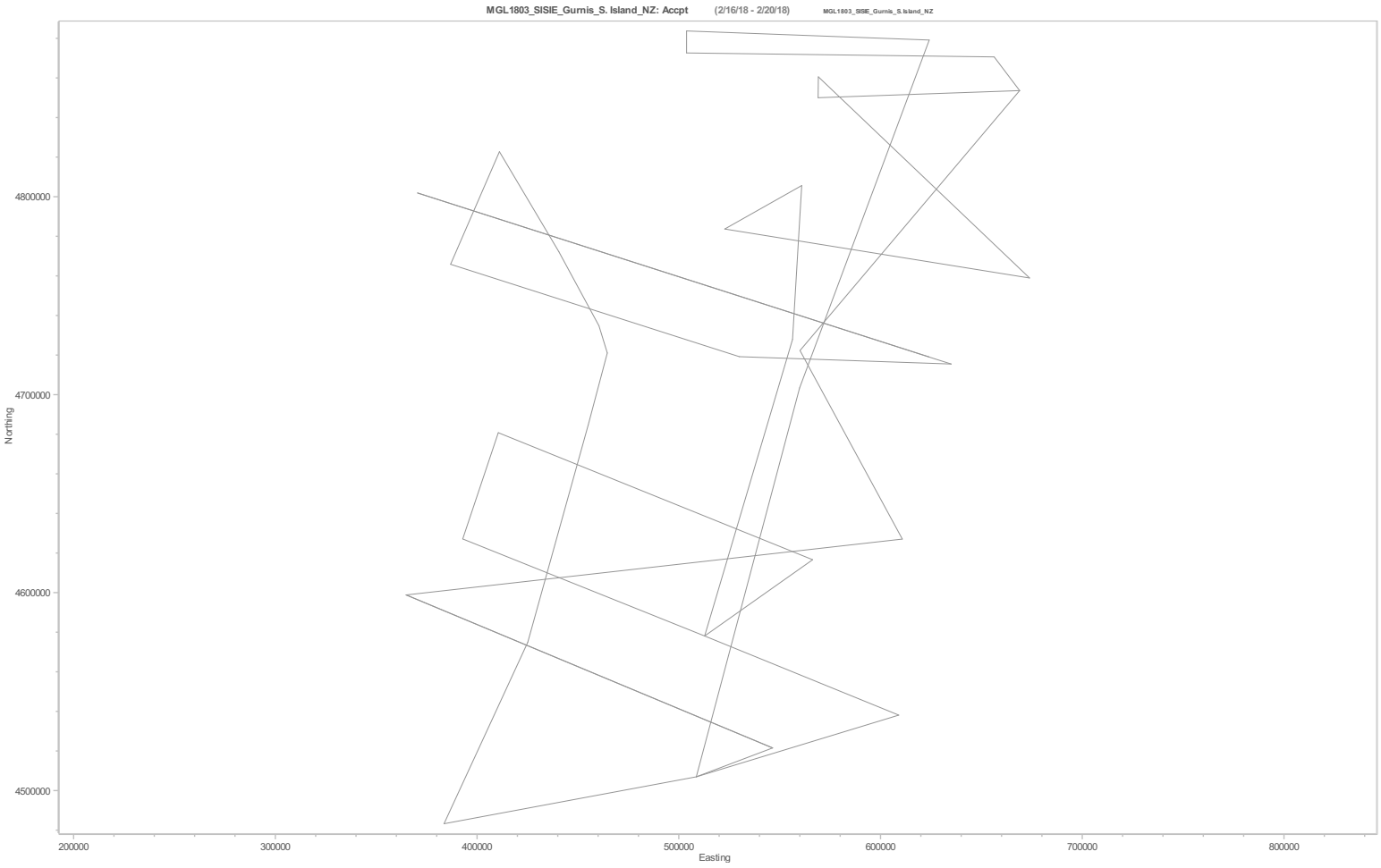
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (no data for period)

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

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

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 Comment Summaries - Daily Comments On Status of Equipment

Tue 20 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

Daily Comment Summaries - Personnel Onboard

Tue 20 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

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Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

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Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Wed 21 Feb

The Vessel started the day continuing OBS Deployment operations. At 05:56 UTC OBS deployment was completed. The vessel then began deployment of the source and making it way to LINE MGL1803OBS01. The Line Started at 10:41 UTC and continued throughout the rest of the day.

Daily Comment Summaries - Plan for Tomorrow

Wed 21 Feb

At the start of the day the vessel will continue Line MGL1803OBS01 heading to the NW. It is expected to complete this line at ~12:30 UTC and at that time the towed equipment will be recovered an the vessel will begin OBS recovery Operations. It is expected that once OBS Recovery operations will continue throughout the remainder of the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Transit	SB_TRT	Wed 21. Feb 00:00	Wed 21. Feb 00:37	0.617
Transiting to OBS114's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 00:37	Wed 21. Feb 00:43	0.100
Deployment of OBS114				
Transit	SB_TRT	Wed 21. Feb 00:43	Wed 21. Feb 01:27	0.733
Transiting to OBS115's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 01:27	Wed 21. Feb 01:35	0.133
Deployment of OBS115				
Transit	SB_TRT	Wed 21. Feb 01:35	Wed 21. Feb 02:18	0.717
Transiting to OBS116's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 02:18	Wed 21. Feb 02:25	0.117
Deployment of OBS116				
Transit	SB_TRT	Wed 21. Feb 02:25	Wed 21. Feb 03:08	0.717
Transiting to OBS117's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 03:08	Wed 21. Feb 03:14	0.100
Deployment of OBS117.				
Transit	SB_TRT	Wed 21. Feb 03:14	Wed 21. Feb 03:59	0.750
Transit to OBS118's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 03:59	Wed 21. Feb 04:06	0.117
Deployment of OBS118				
Transit	SB_TRT	Wed 21. Feb 04:06	Wed 21. Feb 04:52	0.767
Transit to OBS119's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 04:52	Wed 21. Feb 04:58	0.100
Deployment of OBS119				
Transit	SB_TRT	Wed 21. Feb 04:58	Wed 21. Feb 05:49	0.850
Transit to OBS120's Deployment Site				
Deployment	MB_DP	Wed 21. Feb 05:49	Wed 21. Feb 05:56	0.117
Mobilising offshore, deploying outboard equipment.				
Transit	SB_TRT	Wed 21. Feb 05:56	Wed 21. Feb 06:14	0.300
Transit to Source Deployment Location				
Deployment	MB_DP	Wed 21. Feb 06:14	Wed 21. Feb 06:44	0.500
Deployment of PAM and Maggie				
Deployment	MB_DP	Wed 21. Feb 06:44	Wed 21. Feb 09:44	3.000
Deployment of Source				
Cetacean	SB_CT	Wed 21. Feb 09:44	Wed 21. Feb 10:10	0.433
Rampup of source				
Transit	SB_TRT	Wed 21. Feb 10:10	Wed 21. Feb 10:41	0.517
Transiting to LINE MGL1803OBS01				
Production Prime	AC_PP	Wed 21. Feb 10:41	Wed 21. Feb 24:00	13.317
SOL Seq 1 Line:MGL1803OB01 FGSP=5439 FCSP=5439 Hdg=293.1° Prime MSP Seq 1 Line:MGL1803OB01 LGSP=3018 LCSP=3018 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

21-Feb	Hours	% Percent
Acquisition	**13.317**	**55.486**
Production Prime	13.317	55.486
Chargeable Standby	**6.400**	**26.667**
Cetacean	0.433	1.806
Transit	5.967	24.861
Mobilisation	**4.283**	**17.847**
Deployment	4.283	17.847
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
Chargeable Standby	**15.200**	**10.556**
Cetacean	0.433	0.301

Category	Hours	% Percent
Transit	14.767	10.255
Mobilisation	**115.483**	**80.197**
Deployment	6.383	4.433
Mob Ashore	67.167	46.644
Transit to Prospect	41.933	29.120
Acquisition	**13.317**	**9.248**
Production Prime	13.317	9.248
Total	144.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

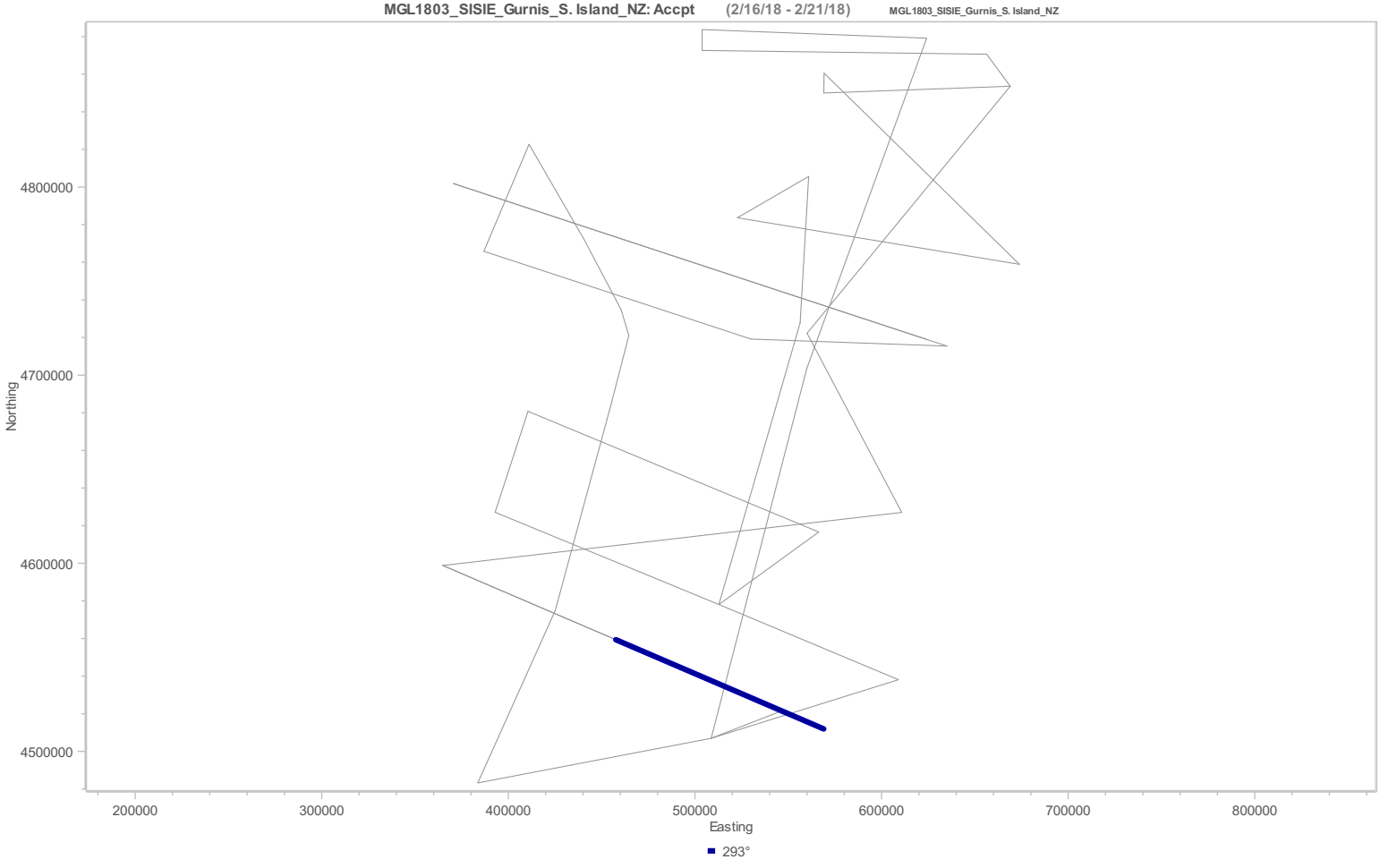
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	OB01	293.1	5439	3018	Prime	121.05	4.908	Part	Midnight
Total						**121.05**			

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

Charged km	Day	Week	Month	Project
Prime	121.05	121.05	121.05	121.05
Infill	0.00	0.00	0.00	0.00
Combined	**121.05**	**121.05**	**121.05**	**121.05**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 21 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

Daily Comment Summaries - Personnel Onboard

Wed 21 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Thu 22 Feb

The Vessel started the day continuing line MGL1803OBS01. At 12:27 UTC the line was completed and we began recovering the Source, PAM, and MAGGIE. At 13:53 all towed equipment was onboard and we were headed back to OBS101's location. OBS recovery operations. OBS Recovery started 14:59 UTC and by the end of the day OBS101, 102, 103, and 104 were onboard.

There was three powerdown's on Line MGL1803OBS01 for PSO sitings of Seals.

Daily Comment Summaries - Plan for Tomorrow

Thu 22 Feb

At the start of the day the vessel will continue OBS recovery Operations and it is hope that by end of day we will have OBS's 105 to 114 onboard.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Thu 22. Feb 00:00	Thu 22. Feb 01:03	1.050
SOL Seq 1 Line:MGL1803OB01 FGSP=3017 FCSP=3017 Hdg=293.1° Prime EOL Seq 1 Line:MGL1803OB01 LGSP=2835 LCSP=2835 Incomplete				
Cetacean	DT_CT	Thu 22. Feb 01:03	Thu 22. Feb 01:41	0.633
NTBP Seq 1 OB01 FSP=2834 LSP=2737 Power down and Rampup for PSO Sighting				
Production Prime	AC_PP	Thu 22. Feb 01:41	Thu 22. Feb 04:09	2.467
SOL Seq 1 Line:MGL1803OB01 FGSP=2736 FCSP=2736 Hdg=293.1° Prime EOL Seq 1 Line:MGL1803OB01 LGSP=2304 LCSP=2304 Incomplete				
Cetacean	DT_CT	Thu 22. Feb 04:09	Thu 22. Feb 04:35	0.433
NTBP Seq 1 OB01 FSP=2303 LSP=2242 Power down and Rampup for PSO Sighting				
Production Prime	AC_PP	Thu 22. Feb 04:35	Thu 22. Feb 08:02	3.450
SOL Seq 1 Line:MGL1803OB01 FGSP=2241 FCSP=2241 Hdg=293.1° Prime EOL Seq 1 Line:MGL1803OB01 LGSP=1638 LCSP=1638 Incomplete				
Cetacean	DT_CT	Thu 22. Feb 08:02	Thu 22. Feb 08:39	0.617
NTBP Seq 1 OB01 FSP=1637 LSP=1552 Power down and Rampup for PSO Sighting				
Production Prime	AC_PP	Thu 22. Feb 08:39	Thu 22. Feb 12:27	3.800
SOL Seq 1 Line:MGL1803OB01 FGSP=1551 FCSP=1551 Hdg=293.1° Prime EOL Seq 1 Line:MGL1803OB01 LGSP=888 LCSP=888 Complete				
Recovery	DM_RC	Thu 22. Feb 12:27	Thu 22. Feb 13:43	1.267
Recovery of Source - to begin OBS recovery Operations				
Recovery	DM_RC	Thu 22. Feb 13:43	Thu 22. Feb 13:53	0.167
Recovery of PAM and MAGGIE				
Transit	SB_TRT	Thu 22. Feb 13:53	Thu 22. Feb 14:59	1.100

Category	Code	Start	End	Duration
Transit to OBS101's Recovery Site				
Recovery	DM_RC	Thu 22. Feb 14:59	Thu 22. Feb 16:43	1.733
Recovery of OBS101				
Transit	SB_TRT	Thu 22. Feb 16:43	Thu 22. Feb 17:17	0.567
Transit to OBS102's Recovery Site				
Recovery	DM_RC	Thu 22. Feb 17:17	Thu 22. Feb 18:50	1.550
Recovery of OBS102				
Transit	SB_TRT	Thu 22. Feb 18:50	Thu 22. Feb 19:31	0.683
Transit to OBS103's Recovery Site				
Recovery	DM_RC	Thu 22. Feb 19:31	Thu 22. Feb 20:53	1.367
Recovery of OBS103				
Transit	SB_TRT	Thu 22. Feb 20:53	Thu 22. Feb 21:27	0.567
Transit to OBS104'3 Recovery Site				
Recovery	DM_RC	Thu 22. Feb 21:27	Thu 22. Feb 23:02	1.583
Recovery of OBS105				
Transit	SB_TRT	Thu 22. Feb 23:02	Thu 22. Feb 23:45	0.717
Transit to OBS105's Recovery Site				
Recovery	DM_RC	Thu 22. Feb 23:45	Thu 22. Feb 24:00	0.250
Recovery of OBS105				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

22-Feb	Hours	% Percent
Acquisition	**10.767**	**44.861**
Production Prime	10.767	44.861
Chargeable Standby	**3.633**	**15.139**
Transit	3.633	15.139
Demobilisation	**7.917**	**32.986**
Recovery	7.917	32.986
DownTime	**1.683**	**7.014**
Cetacean	1.683	7.014
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
DownTime	**1.683**	**1.002**
Cetacean	1.683	1.002
Chargeable Standby	**18.833**	**11.210**
Cetacean	0.433	0.258
Transit	18.400	10.952
Mobilisation	**115.483**	**68.740**
Deployment	6.383	3.800
Mob Ashore	67.167	39.980
Transit to Prospect	41.933	24.960
Acquisition	**24.083**	**14.335**

Category	Hours	% Percent
Production Prime	24.083	14.335
Demobilisation	**7.917**	**4.712**
Recovery	7.917	4.712
Total	168.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

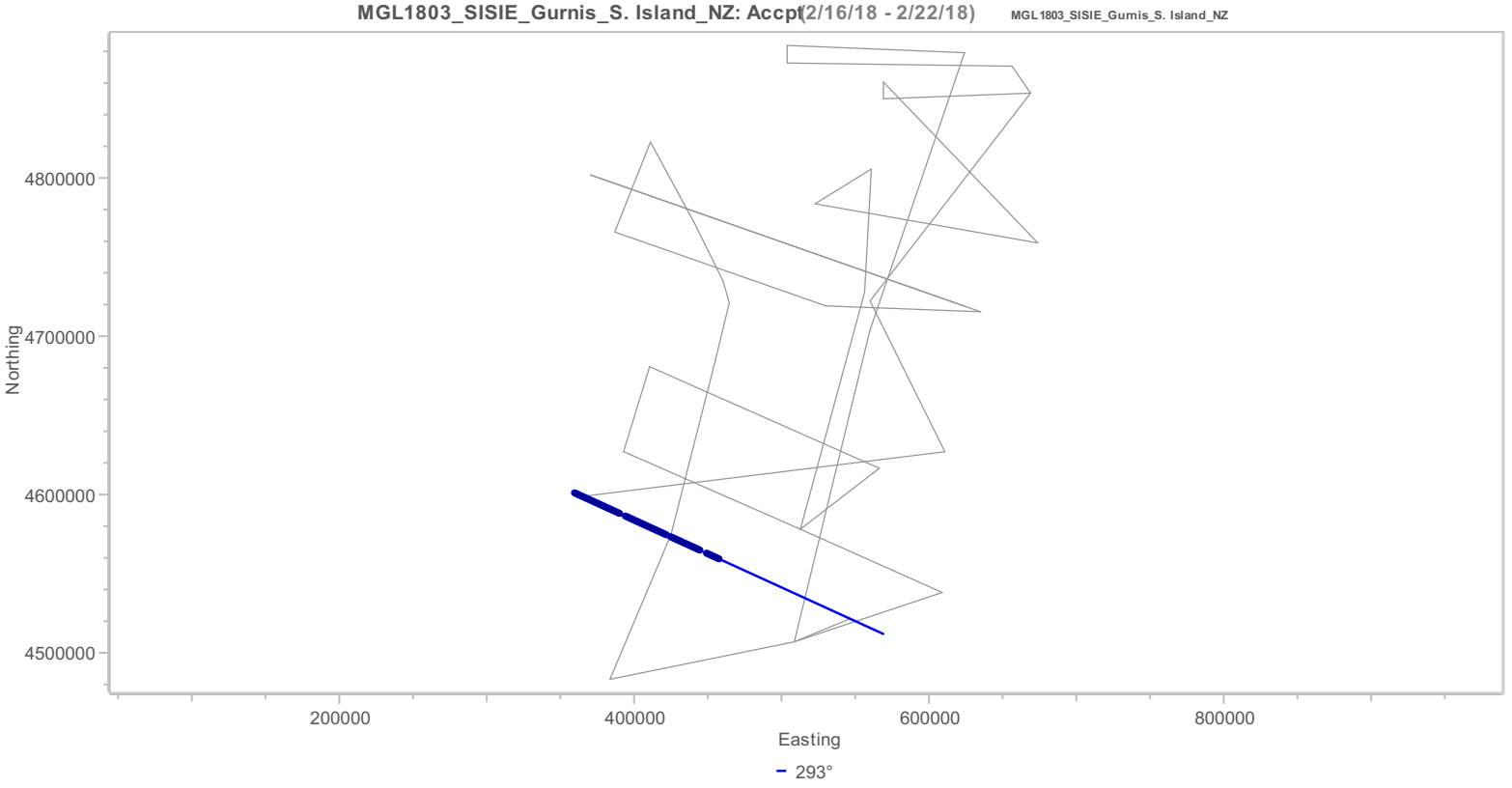
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	OB01	293.1	3017	888	Prime	94.20	1.977	Complete	Complete
NTBP: 2834 - 2737 (not chgd), NTBP: 2303 - 2242 (not chgd), NTBP: 1637 - 1552 (not chgd)									
Total						**94.20**			

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

Charged km	Day	Week	Month	Project
Prime	94.20	215.25	215.25	215.25
Infill	0.00	0.00	0.00	0.00
Combined	**94.20**	**215.25**	**215.25**	**215.25**



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 22 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

Daily Comment Summaries - Personnel Onboard

Thu 22 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Fri 23 Feb

The Vessel spent the entire day continuing OBS recovery operations and by the end of the day had recovered OBS106-108 and 110-114. OBS109 was communicating but would not release the sea floor after multiple commands. It was decided to move on with recovery operations. We will be passing over the site a couple of more times during the mission an will make future attempts to recover the instrument.

Daily Comment Summaries - Plan for Tomorrow

Fri 23 Feb

At the start of the day the vessel will continue OBS recovery Operations and at 01:15 UTC the vessel will stand down for weather. It is expect that it will be down for weather for the remainder of the day. Once the weather drops the vessel will resume OBS recovery operations.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Recovery	DM_RC	Fri 23. Feb 00:00	Fri 23. Feb 01:35	1.583
Recovery of OBS105				
Transit	SB_TRT	Fri 23. Feb 01:35	Fri 23. Feb 02:17	0.700
Transit to OBS106's Site				
Recovery	DM_RC	Fri 23. Feb 02:17	Fri 23. Feb 03:44	1.450
Recovery of OBS106				
Transit	SB_TRT	Fri 23. Feb 03:44	Fri 23. Feb 04:25	0.683
Transit to OBS107's Site				
Recovery	DM_RC	Fri 23. Feb 04:25	Fri 23. Feb 06:04	1.650
Recovery of OBS107				
Transit	SB_TRT	Fri 23. Feb 06:04	Fri 23. Feb 06:42	0.633
Transit to OBS108's Site				
Recovery	DM_RC	Fri 23. Feb 06:42	Fri 23. Feb 08:33	1.850
Recovery of OBS108's				
Transit	SB_TRT	Fri 23. Feb 08:33	Fri 23. Feb 09:13	0.667
Transit to OBS109's Site				
Recovery	DM_RC	Fri 23. Feb 09:13	Fri 23. Feb 12:30	3.283
Recovery of OBS109 - Aborted Instrument would talk and accept release command but would not leave the bottom.				
Transit	SB_TRT	Fri 23. Feb 12:30	Fri 23. Feb 13:09	0.650
Transit to OBS110's Site				
Recovery	DM_RC	Fri 23. Feb 13:09	Fri 23. Feb 15:06	1.950
Recovery of OBS110				
Transit	SB_TRT	Fri 23. Feb 15:06	Fri 23. Feb 15:39	0.550
Transit to OBS111's Site				

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Category	Code	Start	End	Duration
Recovery	DM_RC	Fri 23. Feb 15:39	Fri 23. Feb 15:46	0.117
Testing of Communication with OBS111 - Will return at daylight to recovery. Older style OBS is hard to see at night.				
Transit	SB_TRT	Fri 23. Feb 15:46	Fri 23. Feb 16:19	0.550
Trasit to OBS112's Site				
Recovery	DM_RC	Fri 23. Feb 16:19	Fri 23. Feb 17:17	0.967
Recovery of OBS112				
Transit	SB_TRT	Fri 23. Feb 17:17	Fri 23. Feb 17:54	0.617
Transit Back to OBS111's Site				
Recovery	DM_RC	Fri 23. Feb 17:54	Fri 23. Feb 19:36	1.700
Recovery of OBS111				
Transit	SB_TRT	Fri 23. Feb 19:36	Fri 23. Feb 20:44	1.133
Transit to OBS113's Site				
Recovery	DM_RC	Fri 23. Feb 20:44	Fri 23. Feb 21:40	0.933
Recovery of OBS113				
Transit	SB_TRT	Fri 23. Feb 21:40	Fri 23. Feb 22:15	0.583
Transit to OBS114 Site				
Recovery	DM_RC	Fri 23. Feb 22:15	Fri 23. Feb 23:17	1.033
Recovery of OBS114				
Transit	SB_TRT	Fri 23. Feb 23:17	Fri 23. Feb 23:57	0.667
Transit to OBS115's Recovery Site				
Recovery	DM_RC	Fri 23. Feb 23:57	Fri 23. Feb 24:00	0.050
Recovery of OBS115				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

23-Feb	Hours	% Percent
Chargeable Standby	**7.433**	**30.972**
Transit	7.433	30.972
Demobilisation	**16.567**	**69.028**
Recovery	16.567	69.028
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
DownTime	**1.683**	**0.877**
Cetacean	1.683	0.877
Chargeable Standby	**26.267**	**13.681**
Cetacean	0.433	0.226
Transit	25.833	13.455
Mobilisation	**115.483**	**60.148**
Deployment	6.383	3.325
Mob Ashore	67.167	34.983
Transit to Prospect	41.933	21.840
Acquisition	**24.083**	**12.543**
Production Prime	24.083	12.543

Category	Hours	% Percent
Demobilisation	**24.483**	**12.752**
Recovery	24.483	12.752
Total	192.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

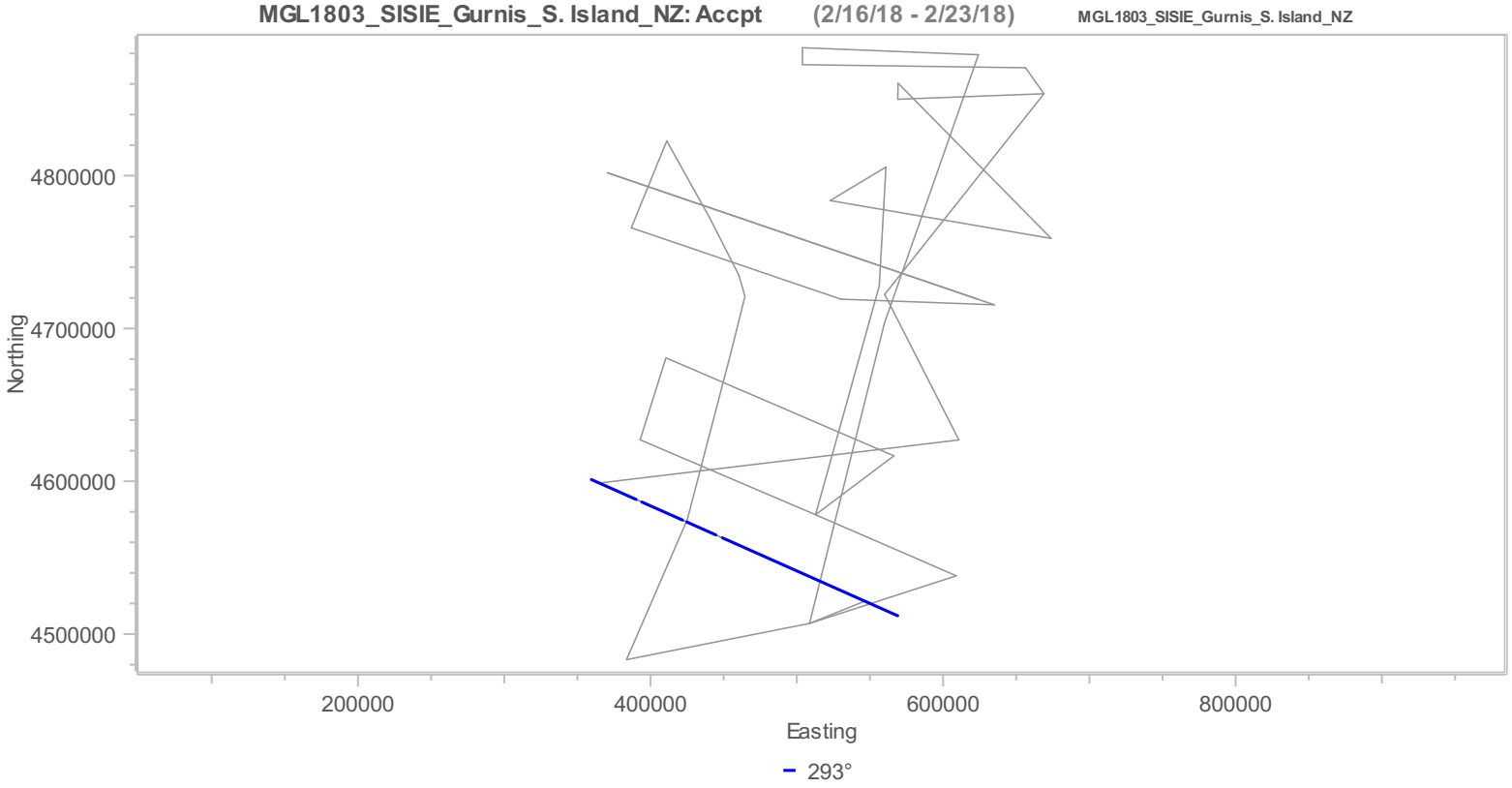
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	215.25	215.25	215.25
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**215.25**	**215.25**	**215.25**



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 23 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

Daily Comment Summaries - Personnel Onboard

Fri 23 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sat 24 Feb

The Vessel started day continuing OBS recovery operations at 01:15 UTC OBS115 was onboard. At that time vessel switched into Weather Standby mode and started making its way towards Auckland Island to the south of the survey area. At ~15:03 UTC the vessel was on the lea side of the island standing by for weather. At 20:58 UTC the vessel got underway and began transiting back towards the survey area, which continued throughout the remainder of the day.

At 14:35 UTC the gravity meter was showing inconsistent readings and trouble shooting continued throughout the day. See Daily Comments on Status of Equipment for more Details.

Daily Comment Summaries - Plan for Tomorrow

Sat 24 Feb

At the start of the day the vessel will continue OBS recovery Operations and at 01:15 UTC the vessel will stand down for weather. It is expect that it will be down for weather for the remainder of the day. Once the weather drops the vessel will resume OBS recovery operations.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Recovery	DM_RC	Sat 24. Feb 00:00	Sat 24. Feb 01:15	1.250
Recovery of OBS115				
Weather	SB_WX	Sat 24. Feb 01:15	Sat 24. Feb 15:03	13.800
Transit to Auckland Island to wait out worst of the weather.				
Weather	SB_WX	Sat 24. Feb 15:03	Sat 24. Feb 20:58	5.917
Standing by heaved to behind Auckland Island, waiting out worst weather.				
Weather	SB_WX	Sat 24. Feb 20:58	Sat 24. Feb 24:00	3.033
Transiting back to survey area, standing by for weather.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

24-Feb	Hours	% Percent
Chargeable Standby	**22.750**	**94.792**
Weather	22.750	94.792
Demobilisation	**1.250**	**5.208**
Recovery	1.250	5.208
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
DownTime	**1.683**	**0.779**
Cetacean	1.683	0.779
Chargeable Standby	**49.017**	**22.693**
Cetacean	0.433	0.201

Category	Hours	% Percent
Transit	25.833	11.960
Weather	22.750	10.532
Mobilisation	**115.483**	**53.465**
Deployment	6.383	2.955
Mob Ashore	67.167	31.096
Transit to Prospect	41.933	19.414
Acquisition	**24.083**	**11.150**
Production Prime	24.083	11.150
Demobilisation	**25.733**	**11.914**
Recovery	25.733	11.914
Total	216.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

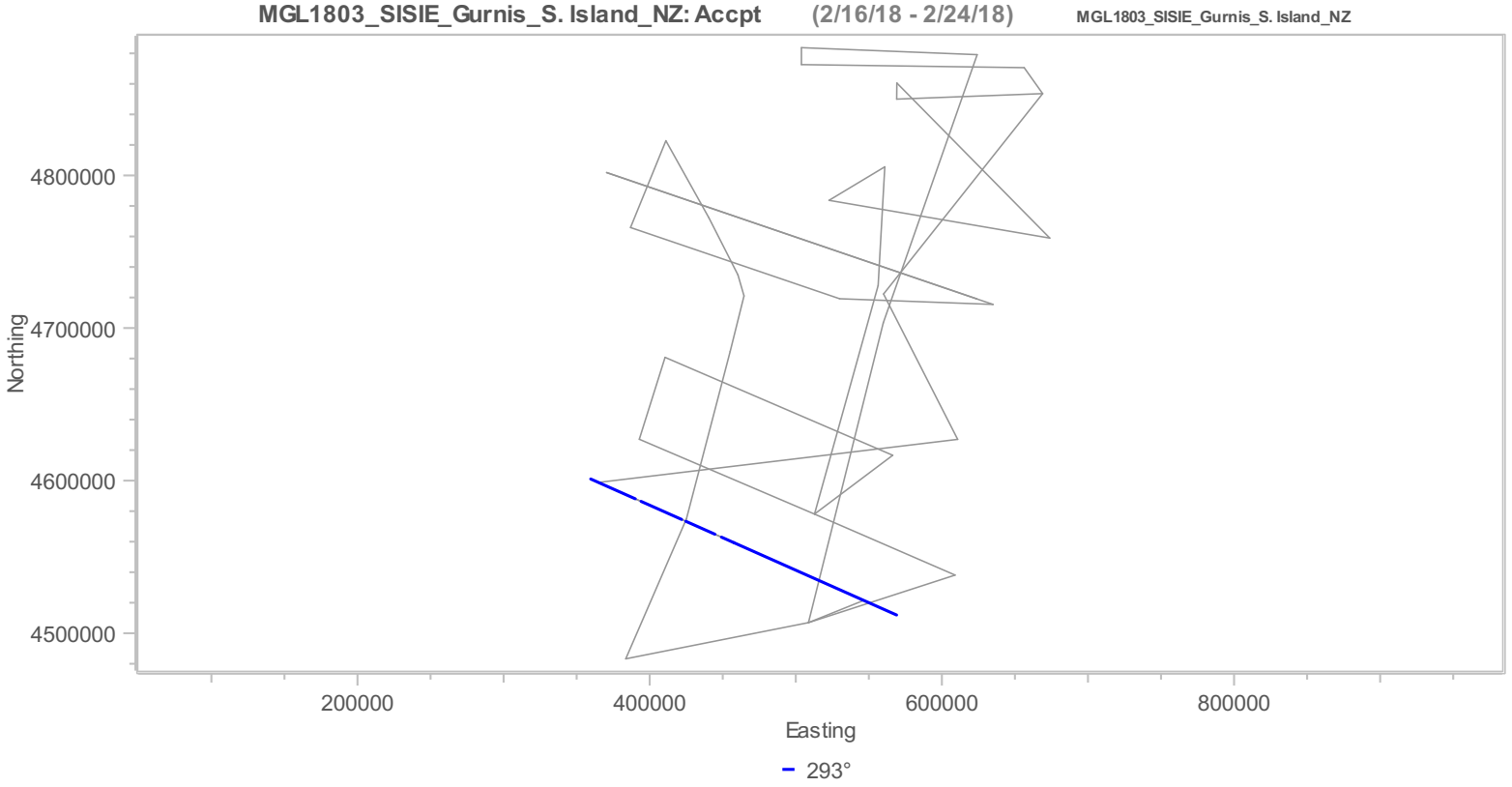
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	215.25	215.25	215.25
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**215.25**	**215.25**	**215.25**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 24 Feb

Navigation:
SeaPath tipped over once during the transit back to the survey area and need to be reset. Operating normally after reset.

Information Technology (IT):
A couple of different times during the day it was notice that various Networks (.4 and .3) traffic would drop out. This included all UDP Broadcast around the vessel. The MX80 and MX42 in the Mainlab were reset and the network traffic is being monitored

Acquisition (OBS):
No Major Issues to Report

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

General Purpose Science:
At ~15:30 UTC it was noticed that the Gravity Meter had stated giving inconsistent readings. The Techs on board began trouble shooting and by ~22:00 UTC had exhausted their efforts. They reached out to shore side support both at LDEO and WHOI for help in trouble shooting. By end of day the Trouble shooting efforts were ongoing and by ~07:00 UTC (25th of Feb) shore side support relayed "I admit that this is a condition I've never seen before, and don't have a clear path to resolution". We will continue trouble shooting as we can with support from shore but at this time the data from the gravity meter is faulty.

Daily Comment Summaries - Personnel Onboard

Sat 24 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sun 25 Feb

The Vessel started the day standing by for weather. At 19:00 UTC it was decided that the weather had decreased enough to resume OBS recovery operation on OBS120. The vessel remained in this mode throughout the rest of the day and by days end had OBS120 and OBS119 on-board an was enoute to OBS118's Site.

More trouble shooting took place on the gravity meter and at 14:26 UTC the data looked good. It appears the issues was a stuck sensor. Also during the day there was multiple dropouts/resets of the ships networks, most notably being the .3 and .4.

Daily Comment Summaries - Plan for Tomorrow

Sun 25 Feb

At the start of the day the vessel continued with OBS recovery operations on Line OBS01. It is expected to complete recovery operations at ~02:40 and begin transiting to Line OBS02 to start OBS deployments at ~ 15:00 UTC, Deployment operations will continue throughout the remainder of the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Weather	SB_WX	Sun 25. Feb 00:00	Sun 25. Feb 08:03	8.050
Transiting back to survey area, standing by for weather.				
Weather	SB_WX	Sun 25. Feb 08:03	Sun 25. Feb 19:00	10.950
At the survey area, steanding by for weather				
Recovery	DM_RC	Sun 25. Feb 19:00	Sun 25. Feb 20:36	1.600
Recovery of OBS120				
Transit	SB_TRT	Sun 25. Feb 20:36	Sun 25. Feb 21:22	0.767
Transit to OBS119's Site				
Recovery	DM_RC	Sun 25. Feb 21:22	Sun 25. Feb 22:29	1.117
Recovery of OBS119				
Transit	SB_TRT	Sun 25. Feb 22:29	Sun 25. Feb 23:19	0.833
Transit of OBS118's Site				
Recovery	DM_RC	Sun 25. Feb 23:19	Sun 25. Feb 24:00	0.683
Recovery of OBS118				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

25-Feb	Hours	% Percent
Chargeable Standby	**20.600**	**85.833**
Transit	1.600	6.667
Weather	19.000	79.167
Demobilisation	**3.400**	**14.167**
Recovery	3.400	14.167

25-Feb	Hours	% Percent
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
DownTime	**1.683**	**0.701**
Cetacean	1.683	0.701
Chargeable Standby	**69.617**	**29.007**
Cetacean	0.433	0.181
Transit	27.433	11.431
Weather	41.750	17.396
Mobilisation	**115.483**	**48.118**
Deployment	6.383	2.660
Mob Ashore	67.167	27.986
Transit to Prospect	41.933	17.472
Acquisition	**24.083**	**10.035**
Production Prime	24.083	10.035
Demobilisation	**29.133**	**12.139**
Recovery	29.133	12.139
Total	240.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

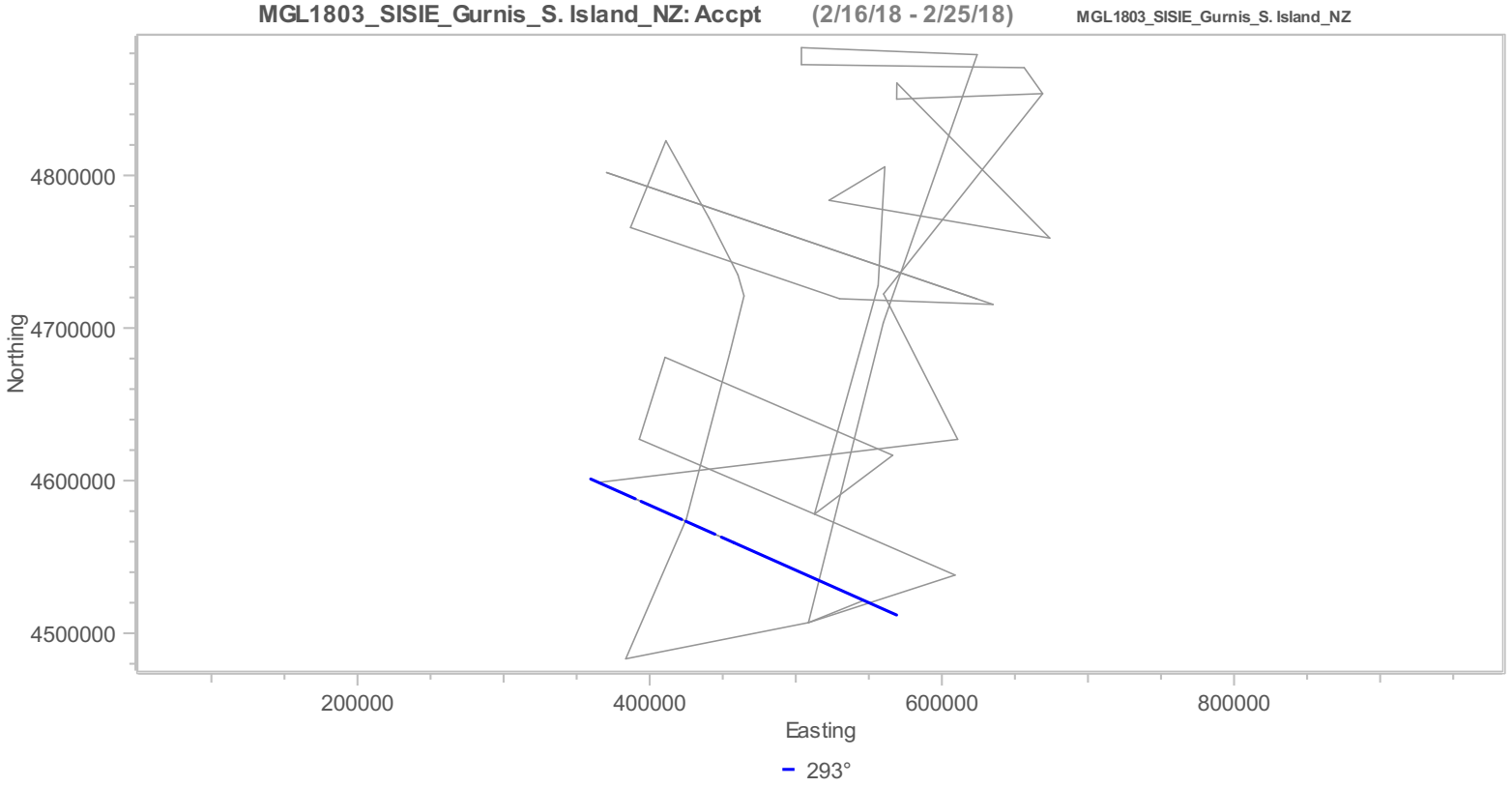
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	215.25	215.25	215.25
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**215.25**	**215.25**	**215.25**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 25 Feb

Navigation:
No Major Issues to Report

Information Technology (IT):
It was again noted a couple different times during the day that the traffic .4 and .3 networks would drop out. This included all UDP Broadcast around the vessel. Teh MX40 was found to have a bad port 10 and the equipment on that port was moved to port 14. However even after this it was still observed that the dropouts continued. Further investigation will need to take place.

Acquisition (OBS):
No Major Issues to Report

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

General Purpose Science:
Trouble shooting of the Gravity meter issues continued throughout the day with the help of shore side support. At 14:15 UTC the CPS was secured and the gimbaled table was rotated in all direction until it hits the stops. This dislodged what appeared to be a stuck sensor and at 14:26 UTC the Gravity meter was fully online and operational. There is one thing that is still happening in that when the vessel pitches and the Pitch voltage (CPS06) reading gets above -10v the DNV light comes one. The Data on the meter is still good. It is just that with the movement of the vessel during the reset it has set a bias in this reading.

Daily Comment Summaries - Personnel Onboard

Sun 25 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

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Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc student

Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

2/26/18

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Mon 26 Feb

The Vessel started the day continuing OBS Recovery and at 04:35 UTC all OBS were onboard and the vessel started transiting to Line MGL1803OBS02 to start deployment operations. At 15:51 UTC the vessel arrived at OBS223 Deployment site and began OBS deployent operations. By the end of day OBS215-OBS223 had been deployed.

Daily Comment Summaries - Plan for Tomorrow

Mon 26 Feb

At the start of the day the vessel continued with OBS deployment operations on Line OBS02. It is expected that by ~10:30 UTC all OBS will be deployed and the vessel will start deployment of the seismic source. It is Expected by ~13:15 UTC the vessel will start Acquiring data on Line MGL1803OBS02. It is expected to remain in this mode throughout the remainder of the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Recovery	DM_RC	Mon 26. Feb 00:00	Mon 26. Feb 00:38	0.633
Recovery of OBS118				
Transit	SB_TRT	Mon 26. Feb 00:38	Mon 26. Feb 01:28	0.833
Transit to OBS117's Recovery Site				
Recovery	DM_RC	Mon 26. Feb 01:28	Mon 26. Feb 02:40	1.200
Recovery of OBS117				
Transit	SB_TRT	Mon 26. Feb 02:40	Mon 26. Feb 03:29	0.817
Transit to OBS116's Recovery site				
Recovery	DM_RC	Mon 26. Feb 03:29	Mon 26. Feb 04:35	1.100
Recovery of OBS116				
Transit	SB_TRT	Mon 26. Feb 04:35	Mon 26. Feb 15:51	11.267
Transit to OBS223's Deployment Site				
Deployment	MB_DP	Mon 26. Feb 15:51	Mon 26. Feb 16:07	0.267
Deployment of OBS223				
Transit	SB_TRT	Mon 26. Feb 16:07	Mon 26. Feb 16:56	0.817
Transit to OBS222 Deployment Site				
Deployment	MB_DP	Mon 26. Feb 16:56	Mon 26. Feb 17:07	0.183
Deployment of OBS222				
Transit	SB_TRT	Mon 26. Feb 17:07	Mon 26. Feb 17:58	0.850
Transit to OBS221 deployment site				
Deployment	MB_DP	Mon 26. Feb 17:58	Mon 26. Feb 18:07	0.150
Deployment of OBS221				
Transit	SB_TRT	Mon 26. Feb 18:07	Mon 26. Feb 18:55	0.800
Transit to OBS220 Deployment Site				
Deployment	MB_DP	Mon 26. Feb 18:55	Mon 26. Feb 19:03	0.133
Deployment of OBS220				
Transit	SB_TRT	Mon 26. Feb 19:03	Mon 26. Feb 19:46	0.717
Transiting to OBS219 Deployment Site				
Deployment	MB_DP	Mon 26. Feb 19:46	Mon 26. Feb 19:55	0.150
Deployment of OBS219				
Transit	SB_TRT	Mon 26. Feb 19:55	Mon 26. Feb 20:36	0.683
Transit to OBS218's Deployment Site.				
Deployment	MB_DP	Mon 26. Feb 20:36	Mon 26. Feb 20:44	0.133
Deployment of OBS218				
Transit	SB_TRT	Mon 26. Feb 20:44	Mon 26. Feb 21:23	0.650
Transit to OBS217 Deployment Site				
Deployment	MB_DP	Mon 26. Feb 21:23	Mon 26. Feb 22:11	0.800
Deployment of OBS217 - Had mechanical issues with Anchor which delayed the deployment.				
Transit	SB_TRT	Mon 26. Feb 22:11	Mon 26. Feb 22:49	0.633
Transit to OBS116's Deployment Site				
Deployment	MB_DP	Mon 26. Feb 22:49	Mon 26. Feb 22:56	0.117
Deployment of OBS216				
Transit	SB_TRT	Mon 26. Feb 22:56	Mon 26. Feb 23:31	0.583
Transit to OBS215's Deploment Site				
Deployment	MB_DP	Mon 26. Feb 23:31	Mon 26. Feb 23:37	0.100
Deployment of OBS215				
Transit	SB_TRT	Mon 26. Feb 23:37	Mon 26. Feb 24:00	0.383
Transit to OBS214's Deployment Site				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

26-Feb	Hours	%Percent
Chargeable Standby	**19.033**	**79.306**
Transit	19.033	79.306
Demobilisation	**2.933**	**12.222**
Recovery	2.933	12.222
Mobilisation	**2.033**	**8.472**
Deployment	2.033	8.472
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**1.683**	**0.638**
Cetacean	1.683	0.638
Chargeable Standby	**88.650**	**33.580**
Cetacean	0.433	0.164
Transit	46.467	17.601
Weather	41.750	15.814
Mobilisation	**117.517**	**44.514**
Deployment	8.417	3.188
Mob Ashore	67.167	25.442
Transit to Prospect	41.933	15.884
Acquisition	**24.083**	**9.122**

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Wed Feb 28 2018 01:48am

Category	Hours	%Percent
Production Prime	24.083	9.122
Demobilisation	**32.067**	**12.146**
Recovery	32.067	12.146
Total	264.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

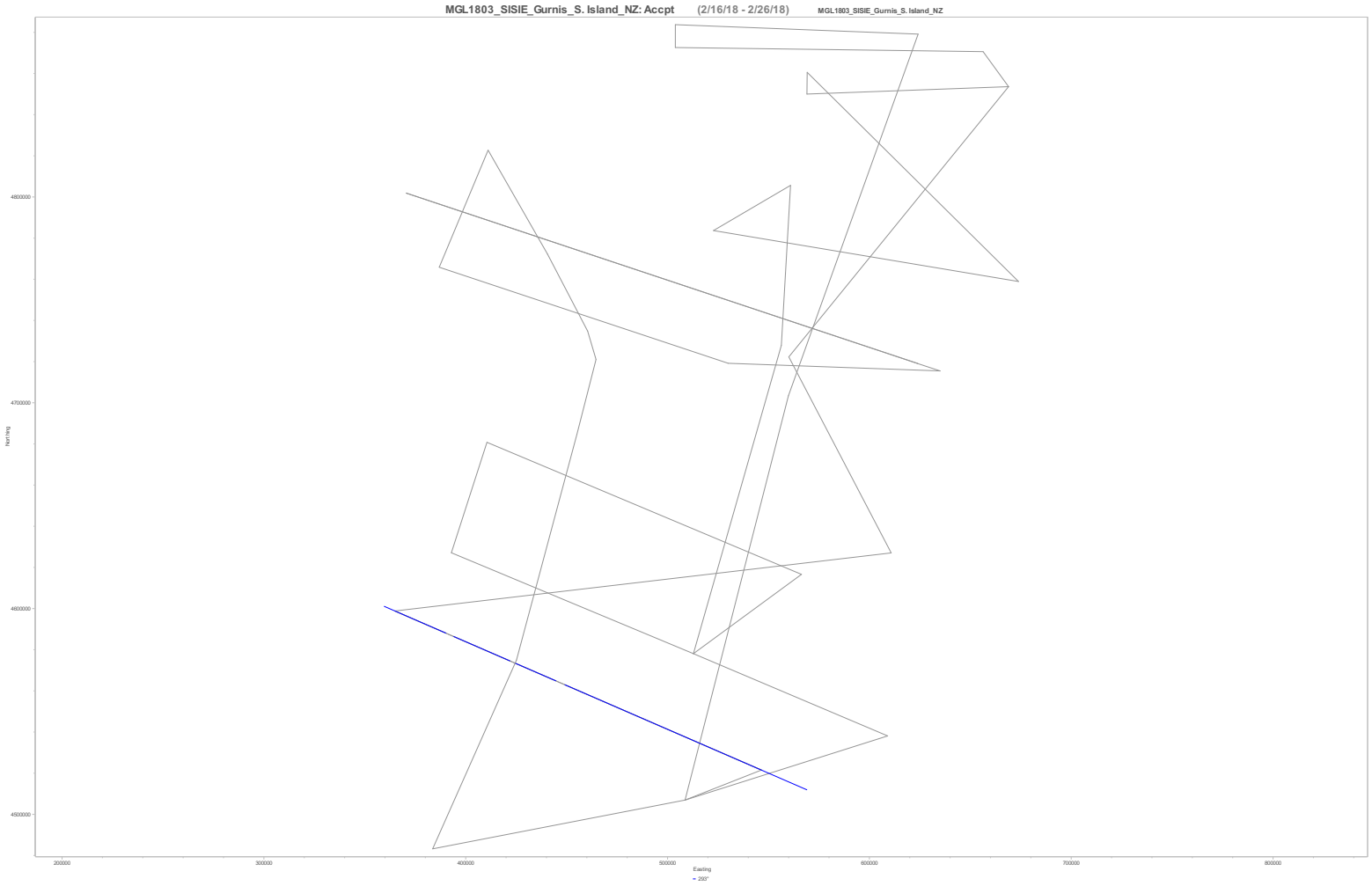
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	215.25	215.25
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**0.00**	**215.25**	**215.25**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 26 Feb

Navigation:
No Major Issues to Report

Information Technology (IT):
Again today we saw times were the MX40 switch in the main lab reset a couple of times.

Acquisition (OBS):
No Major Issues to Report

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

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Mon 26 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
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Clive Dugdale Contract Personnel Marine Science Technician (Observer)

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Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA1, NSF supp.
Williams, Ethan Caltech GRA2, NSF supp.
Shuck, Brandon UT GRA1, NSF supp.
Kardell, Dominic UT GRA2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Tue 27 Feb

The Vessel started the day continuing OBS deployments and at 10:21 UTC had all deployed. It then began deploying the source and making preparation for starting line MGL1803OBS02, which started at 13:19 UTC and continued throughout the day.

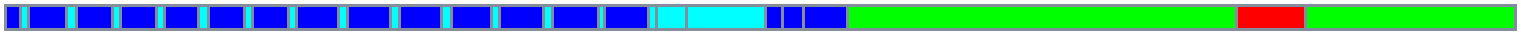
There was a power down for multiple PSO sightings from 19:32 UTC to 20:39 UTC. during line MGL1803OBS02

Daily Comment Summaries - Plan for Tomorrow

Tue 27 Feb

The Vessel will start the day continuing production on Line MGL1803OBS02. It is expected to complete this line at ~20:00 UTC. At that time the vessel will begin recovering all towed Equipment and by ~22:30 UTC should start OBS recovery operations at OBS223's site.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)



Category	Code	Start	End	Duration
Transit	SB_TRT	Tue 27. Feb 00:00	Tue 27. Feb 00:12	0.200
Transit to OBS214's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 00:12	Tue 27. Feb 00:18	0.100
Deployment of OBS214				
Transit	SB_TRT	Tue 27. Feb 00:18	Tue 27. Feb 00:53	0.583
Transit to OBS213's Deployment site				
Deployment	MB_DP	Tue 27. Feb 00:53	Tue 27. Feb 01:02	0.150
Deployment of OBS213				
Transit	SB_TRT	Tue 27. Feb 01:02	Tue 27. Feb 01:35	0.550
Transit to OBS212's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 01:35	Tue 27. Feb 01:41	0.100
Deployment of OBS212				
Transit	SB_TRT	Tue 27. Feb 01:41	Tue 27. Feb 02:14	0.550
Transit to OBS211 Deployment Site				
Deployment	MB_DP	Tue 27. Feb 02:14	Tue 27. Feb 02:21	0.117
Deployment of OBS211				
Transit	SB_TRT	Tue 27. Feb 02:21	Tue 27. Feb 02:52	0.517
Transit to OBS210 Deployment Site				
Deployment	MB_DP	Tue 27. Feb 02:52	Tue 27. Feb 03:01	0.150

Category	Code	Start	End	Duration
Deployment of OBS210				
Transit	SB_TRT	Tue 27. Feb 03:01	Tue 27. Feb 03:34	0.550
Transit to OBS209's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 03:34	Tue 27. Feb 03:42	0.133
Deployment of OBS209				
Transit	SB_TRT	Tue 27. Feb 03:42	Tue 27. Feb 04:17	0.583
Transit to OBS208's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 04:17	Tue 27. Feb 04:25	0.133
Deployment of OBS208				
Transit	SB_TRT	Tue 27. Feb 04:25	Tue 27. Feb 05:06	0.683
Transit to OBS207's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 05:06	Tue 27. Feb 05:14	0.133
Deployment of OBS207				
Transit	SB_TRT	Tue 27. Feb 05:14	Tue 27. Feb 05:56	0.700
Transit to OBS206's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 05:56	Tue 27. Feb 06:04	0.133
Deployment of OBS206				
Transit	SB_TRT	Tue 27. Feb 06:04	Tue 27. Feb 06:44	0.667
Transit to OBS205's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 06:44	Tue 27. Feb 06:55	0.183
Deployment of OBS05				
Transit	SB_TRT	Tue 27. Feb 06:55	Tue 27. Feb 07:34	0.650
Transit to OBS204's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 07:34	Tue 27. Feb 07:43	0.150
Deployment of OBS204				
Transit	SB_TRT	Tue 27. Feb 07:43	Tue 27. Feb 08:26	0.717
Transit to OBS203's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 08:26	Tue 27. Feb 08:34	0.133
Deployment of OBS203				
Transit	SB_TRT	Tue 27. Feb 08:34	Tue 27. Feb 09:18	0.733
Transit to OBS202's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 09:18	Tue 27. Feb 09:25	0.117
Deployment of OBS202				
Transit	SB_TRT	Tue 27. Feb 09:25	Tue 27. Feb 10:07	0.700
Transit to OBS201's Deployment Site				
Deployment	MB_DP	Tue 27. Feb 10:07	Tue 27. Feb 10:16	0.150
Deployment of OBS101				
Deployment	MB_DP	Tue 27. Feb 10:16	Tue 27. Feb 10:45	0.483
Deployment of PAM and Maggie				

Category	Code	Start	End	Duration
Deployment	MB_DP	Tue 27. Feb 10:45	Tue 27. Feb 12:01	1.267
Deployment of Source				
Transit	SB_TRT	Tue 27. Feb 12:01	Tue 27. Feb 12:17	0.267
Transit towards line awaiting PSO Pre-Clearance				
Cetacean	SB_CT	Tue 27. Feb 12:17	Tue 27. Feb 12:37	0.333
Rampup of Source				
Transit	SB_TRT	Tue 27. Feb 12:37	Tue 27. Feb 13:19	0.700
Source Ramped up heading towards line MGL1803OBS02				
Production Prime	AC_PP	Tue 27. Feb 13:19	Tue 27. Feb 19:32	6.217
SOL Seq 2 Line:MGL1803OB02 FGSP=6381 FCSP=6381 Hdg=108.1° Prime EOL Seq 2 Line:MGL1803OB02 LGSP=5295 LCSP=5295 Incomplete				
Cetacean	DT_CT	Tue 27. Feb 19:32	Tue 27. Feb 20:39	1.117
NTBP Seq 2 OB02 FSP=5294 LSP=5131 Powered Down for multiple PSO Sightings (Seals)				
Production Prime	AC_PP	Tue 27. Feb 20:39	Tue 27. Feb 24:00	3.350
SOL Seq 2 Line:MGL1803OB02 FGSP=5130 FCSP=5130 Hdg=108.1° Prime MSP Seq 2 Line:MGL1803OB02 LGSP=4530 LCSP=4530 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

27-Feb	Hours	%Percent
Acquisition	**9.567**	**39.861**
Production Prime	9.567	39.861
Chargeable Standby	**9.683**	**40.347**
Cetacean	0.333	1.389
Transit	9.350	38.958
DownTime	**1.117**	**4.653**
Cetacean	1.117	4.653
Mobilisation	**3.633**	**15.139**
Deployment	3.633	15.139
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**2.800**	**0.972**
Cetacean	2.800	0.972
Chargeable Standby	**98.333**	**34.144**
Cetacean	0.767	0.266
Transit	55.817	19.381
Weather	41.750	14.497
Mobilisation	**121.150**	**42.066**
Deployment	12.050	4.184

Category	Hours	%Percent
Mob Ashore	67.167	23.322
Transit to Prospect	41.933	14.560
Acquisition	**33.650**	**11.684**
Production Prime	33.650	11.684
Demobilisation	**32.067**	**11.134**
Recovery	32.067	11.134
Total	288.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

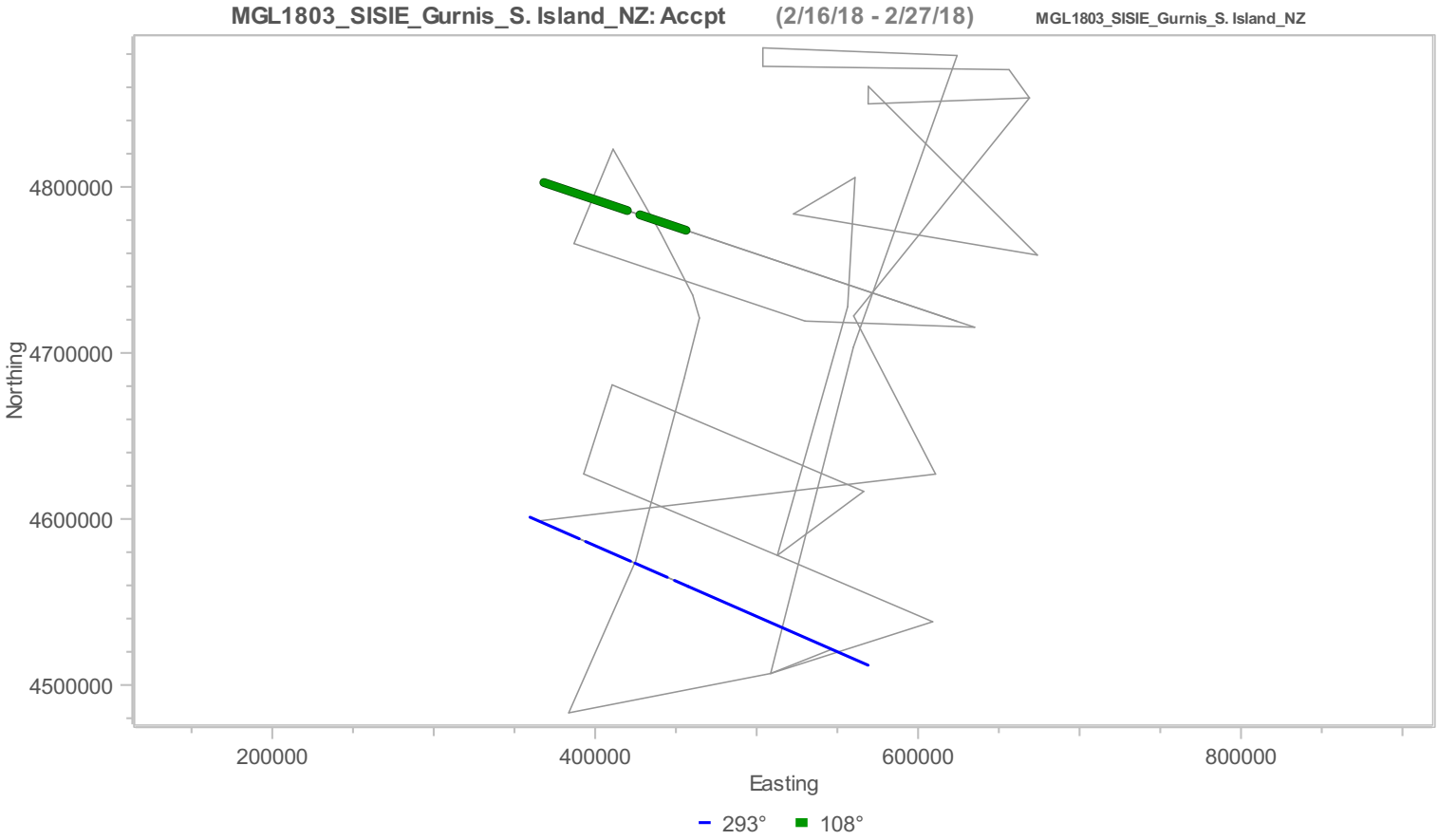
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
2	OB02	108.1	6381	4530	Prime	84.35	2.693	Part	Midnight
NTBP: 5294 - 5131 (not chgd)									
Total						**84.35**			

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

Charged km	Day	Week	Month	Project
Prime	84.35	84.35	299.60	299.60
Infill	0.00	0.00	0.00	0.00
Combined	**84.35**	**84.35**	**299.60**	**299.60**



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 27 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

Daily Comment Summaries - Personnel Onboard

Tue 27 Feb

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief Science Officer
Todd Jensvold L-DEO OMO Science Officer
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Gulick, Sean UT Co-PI
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Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA1, NSF supp.
Williams, Ethan Caltech GRA2, NSF supp.
Shuck, Brandon UT GRA1, NSF supp.
Kardell, Dominic UT GRA2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Wed 28 Feb

The Vessel started the day continuing production on line MGL1803OBS02. At 20:48 UTC the line was completed an recovery of the towed equipment began. At 22:00 UTC all towed equipment was onboard and the vessel was transiting back to OBS223's recovery site. OBS recovery operations began at 22:50 UTC and continued throughout the remainder of the day, with only OBS223 onboard.

There was two power downs for multiple PSO sightings during line MGL1803OBS02.

Daily Comment Summaries - Plan for Tomorrow

Wed 28 Feb

The Vessel will start the day continuing OBS recovery operations and it is hoped by end of the day the vessel will have OBS212 to OBS222 on-board.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Wed 28. Feb 00:00	Wed 28. Feb 01:43	1.717
SOL Seq 2 Line:MGL1803OB02 FGSP=4529 FCSP=4529 Hdg=108.1° Prime EOL Seq 2 Line:MGL1803OB02 LGSP=4224 LCSP=4224 Incomplete				
Cetacean	DT_CT	Wed 28. Feb 01:43	Wed 28. Feb 02:21	0.633
NTBP Seq 2 OB02 FSP=4223 LSP=4126 Power down for PSO Sighting				
Production Prime	AC_PP	Wed 28. Feb 02:21	Wed 28. Feb 18:19	15.967
SOL Seq 2 Line:MGL1803OB02 FGSP=4125 FCSP=4125 Hdg=108.1° Prime EOL Seq 2 Line:MGL1803OB02 LGSP=1239 LCSP=1239 Incomplete				
Cetacean	DT_CT	Wed 28. Feb 18:19	Wed 28. Feb 19:14	0.917
NTBP Seq 2 OB02 FSP=1238 LSP=1153 Power Down for PSO Sighting				
Production Prime	AC_PP	Wed 28. Feb 19:14	Wed 28. Feb 20:48	1.567
SOL Seq 2 Line:MGL1803OB02 FGSP=1152 FCSP=1152 Hdg=108.1° Prime EOL Seq 2 Line:MGL1803OB02 LGSP=879 LCSP=879 Complete				
Recovery	DM_RC	Wed 28. Feb 20:48	Wed 28. Feb 22:00	1.200
Recovering Seismic Source - PAM and Maggie				
Transit	SB_TRT	Wed 28. Feb 22:00	Wed 28. Feb 22:50	0.833
Transit to OBS223 Recovery Site				
Recovery	DM_RC	Wed 28. Feb 22:50	Wed 28. Feb 23:21	0.517

Category	Code	Start	End	Duration
Recovery of OBS223				
Transit	SB_TRT	Wed 28. Feb 23:21	Wed 28. Feb 24:00	0.650
Transit to OBS222 Recovery Site				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

28-Feb	Hours	%Percent
Acquisition	**19.250**	**80.208**
Production Prime	19.250	80.208
Chargeable Standby	**1.483**	**6.181**
Transit	1.483	6.181
Demobilisation	**1.717**	**7.153**
Recovery	1.717	7.153
DownTime	**1.550**	**6.458**
Cetacean	1.550	6.458
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**4.350**	**1.394**
Cetacean	4.350	1.394
Chargeable Standby	**99.817**	**31.993**
Cetacean	0.767	0.246
Transit	57.300	18.365
Weather	41.750	13.381
Mobilisation	**121.150**	**38.830**
Deployment	12.050	3.862
Mob Ashore	67.167	21.528
Transit to Prospect	41.933	13.440
Acquisition	**52.900**	**16.955**
Production Prime	52.900	16.955
Demobilisation	**33.783**	**10.828**
Recovery	33.783	10.828
Total	312.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

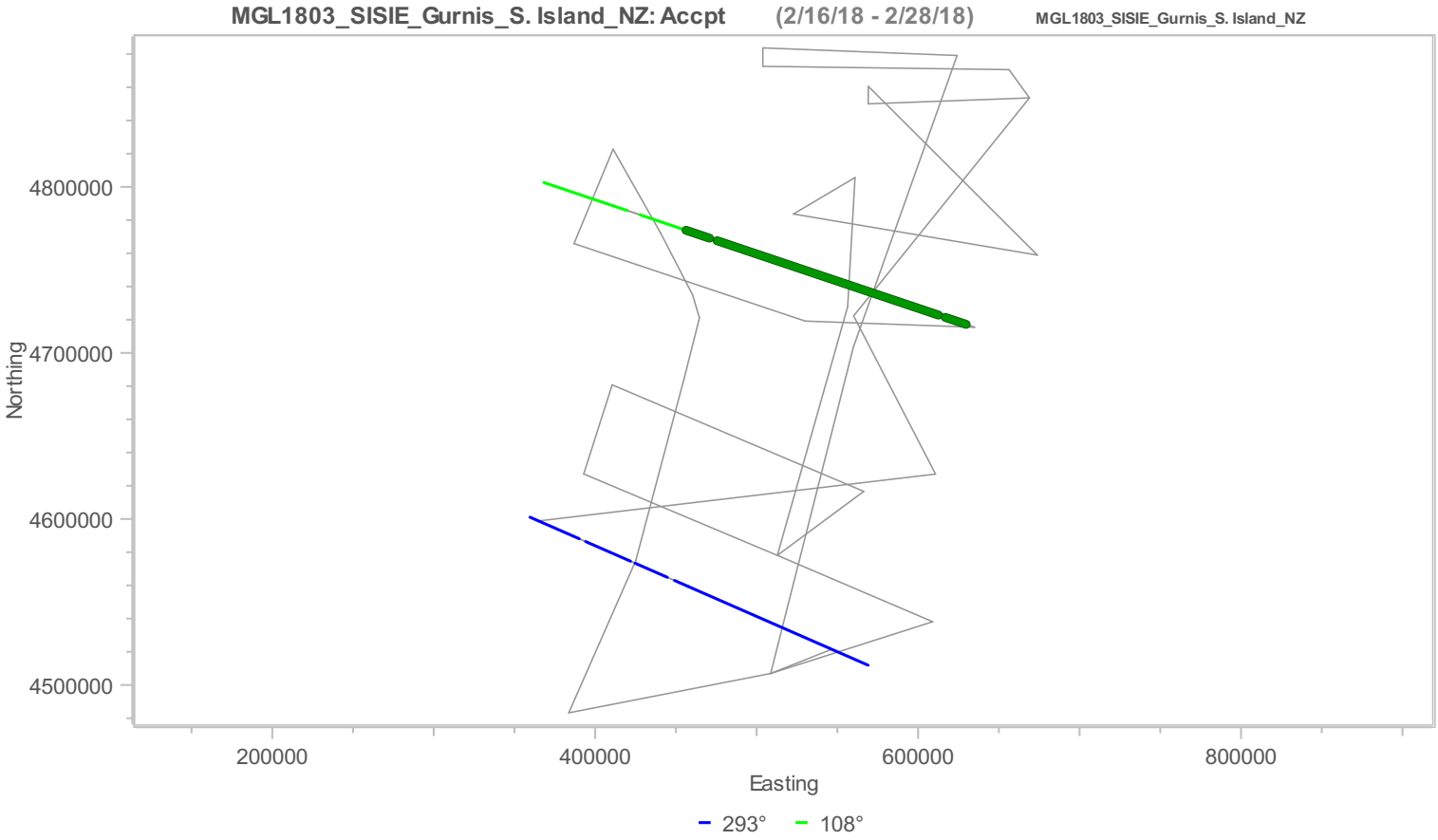
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
2	OB02	108.1	4529	879	Prime	173.35	2.291	Complete	Complete
NTBP: 4223 - 4126 (not chgd), NTBP: 1238 - 1153 (not chgd)									
Total						**173.35**			

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

Charged km	Day	Week	Month	Project
Prime	173.35	257.70	472.95	472.95
Infill	0.00	0.00	0.00	0.00
Combined	**173.35**	**257.70**	**472.95**	**472.95**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 28 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

Daily Comment Summaries - Personnel Onboard

Wed 28 Feb

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Gulick, Sean UT Co-PI
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Duncan, Dan UT OBS Tech. 2
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Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Thu 01 Mar

The Vessel started the day continuing OBS recovery operations, which continued throughout the remainder of the day. OBS 211 to OBS 222 were recovered during the day.

Daily Comment Summaries - Plan for Tomorrow

Thu 01 Mar

The Vessel will start the day continuing OBS recovery operations and it is hoped that by ~21:00 UTC that all OBS will be on-board an Streamer Deployment can commence.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Transit	SB_TRT	Thu 1. Mar 00:00	Thu 1. Mar 00:17	0.283
Transit to OBS222 Recovery Site				
Recovery	DM_RC	Thu 1. Mar 00:17	Thu 1. Mar 00:36	0.317
Recovery of OBS222				
Transit	SB_TRT	Thu 1. Mar 00:36	Thu 1. Mar 01:30	0.900
Transit to OBS221 Recovery Site				
Recovery	DM_RC	Thu 1. Mar 01:30	Thu 1. Mar 02:31	1.017
Recovery of OBS221				
Transit	SB_TRT	Thu 1. Mar 02:31	Thu 1. Mar 03:42	1.183
Transit to OBS220 Recovery Site				
Recovery	DM_RC	Thu 1. Mar 03:42	Thu 1. Mar 04:40	0.967
Recovery of OBS220				
Transit	SB_TRT	Thu 1. Mar 04:40	Thu 1. Mar 05:27	0.783
Transit to OBS219 Recovery Site				
Recovery	DM_RC	Thu 1. Mar 05:27	Thu 1. Mar 06:16	0.817
Recovery of OBS219				
Transit	SB_TRT	Thu 1. Mar 06:16	Thu 1. Mar 07:01	0.750
Transit to OBS218's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 07:01	Thu 1. Mar 07:59	0.967
Recovery of OBS128				
Transit	SB_TRT	Thu 1. Mar 07:59	Thu 1. Mar 08:44	0.750

Category	Code	Start	End	Duration
Transit to OBS217's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 08:44	Thu 1. Mar 10:11	1.450
Recovery of OBS217				
Transit	SB_TRT	Thu 1. Mar 10:11	Thu 1. Mar 10:49	0.633
Transit to OBS216's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 10:49	Thu 1. Mar 12:05	1.267
Recovery of OBS216				
Transit	SB_TRT	Thu 1. Mar 12:05	Thu 1. Mar 12:48	0.717
Transit to OBS215's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 12:48	Thu 1. Mar 14:21	1.550
Recovery of OBS215				
Transit	SB_TRT	Thu 1. Mar 14:21	Thu 1. Mar 15:07	0.767
Transit to OBS214				
Recovery	DM_RC	Thu 1. Mar 15:07	Thu 1. Mar 16:08	1.017
Recover of OBS214				
Transit	SB_TRT	Thu 1. Mar 16:08	Thu 1. Mar 16:49	0.683
Transit to OBS213's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 16:49	Thu 1. Mar 17:49	1.000
Recovery of OBS213				
Transit	SB_TRT	Thu 1. Mar 17:49	Thu 1. Mar 18:28	0.650
Transit to OBS212's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 18:28	Thu 1. Mar 19:36	1.133
Recovery of OBS212				
Transit	SB_TRT	Thu 1. Mar 19:36	Thu 1. Mar 20:11	0.583
Transit to OBS211's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 20:11	Thu 1. Mar 21:46	1.583
Recovery of OBS211				
Transit	SB_TRT	Thu 1. Mar 21:46	Thu 1. Mar 22:21	0.583
Transit to OBS210's Recovery Site				
Recovery	DM_RC	Thu 1. Mar 22:21	Thu 1. Mar 24:00	1.650
Recovery of OBS210				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

1-Mar	Hours	%Percent
Chargeable Standby	**9.267**	**38.611**
Transit	9.267	38.611
Demobilisation	**14.733**	**61.389**
Recovery	14.733	61.389
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**4.350**	**1.295**
Cetacean	4.350	1.295
Chargeable Standby	**109.083**	**32.465**
Cetacean	0.767	0.228
Transit	66.567	19.812
Weather	41.750	12.426
Mobilisation	**121.150**	**36.057**
Deployment	12.050	3.586
Mob Ashore	67.167	19.990
Transit to Prospect	41.933	12.480
Acquisition	**52.900**	**15.744**
Production Prime	52.900	15.744
Demobilisation	**48.517**	**14.439**
Recovery	48.517	14.439
Total	336.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

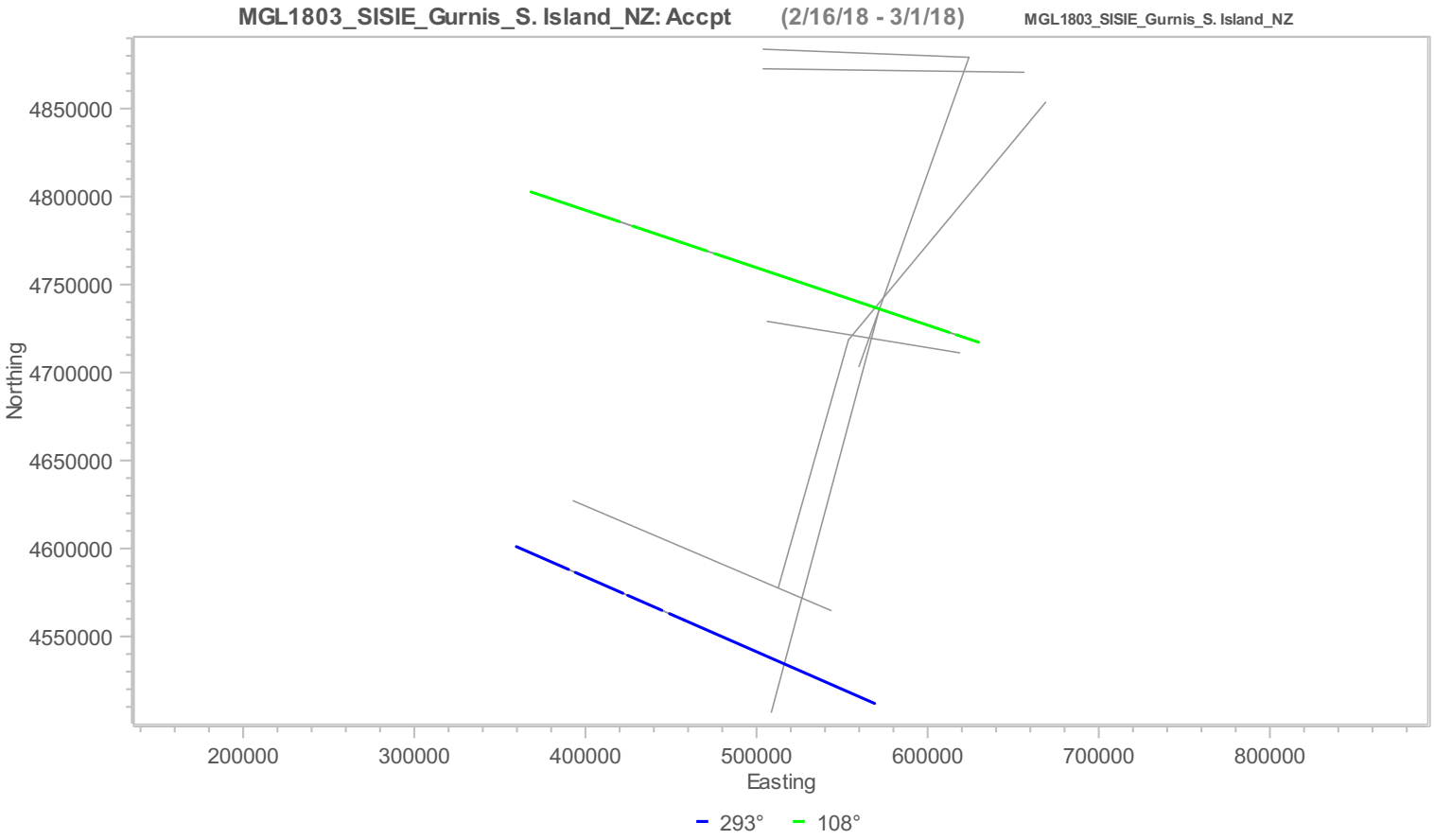
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	257.70	0.00	472.95
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**257.70**	**0.00**	**472.95**



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 01 Mar

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

Daily Comment Summaries - Personnel Onboard

Thu 01 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Fri 02 Mar

The Vessel started the day continuing OBS recovery operations, which continued unitl 23:05 UTC. At that time all OBS had been recovered and the vessel moved into Streamer Deployment operations which continued throughout the remainder of the day. OBS 201 to OBS 210 were recovered during the day.

Daily Comment Summaries - Plan for Tomorrow

Fri 02 Mar

The Vessel will start the day continuing with Streamer Deployment. t is hoped that the vessel can complete Streamer deployment by ~12:00 and be able to get started on Line MGL1803MC01 heading the the ESE.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Recovery	DM_RC	Fri 2. Mar 00:00	Fri 2. Mar 00:21	0.350
Recovery of OBS210				
Transit	SB_TRT	Fri 2. Mar 00:21	Fri 2. Mar 01:07	0.767
Transit to OBS209's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 01:07	Fri 2. Mar 02:42	1.583
Recovery of OBS209				
Transit	SB_TRT	Fri 2. Mar 02:42	Fri 2. Mar 03:27	0.750
Transit to OBS208's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 03:27	Fri 2. Mar 04:55	1.467
Recovery of OBS208				
Transit	SB_TRT	Fri 2. Mar 04:55	Fri 2. Mar 05:43	0.800
Transit to OBS207's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 05:43	Fri 2. Mar 07:12	1.483
Recovery of OBS207				
Transit	SB_TRT	Fri 2. Mar 07:12	Fri 2. Mar 07:55	0.717
Transit to OBS206's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 07:55	Fri 2. Mar 09:32	1.617
Recovery of OBS206				

Category	Code	Start	End	Duration
Transit	SB_TRT	Fri 2. Mar 09:32	Fri 2. Mar 10:10	0.633
Transit to OBS205's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 10:10	Fri 2. Mar 12:30	2.333
Recovery of OBS205				
Transit	SB_TRT	Fri 2. Mar 12:30	Fri 2. Mar 13:09	0.650
Transit to OBS204's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 13:09	Fri 2. Mar 15:35	2.433
Recovery of OBS204				
Transit	SB_TRT	Fri 2. Mar 15:35	Fri 2. Mar 16:19	0.733
Transit to OBS203 Recovery Site				
Recovery	DM_RC	Fri 2. Mar 16:19	Fri 2. Mar 18:17	1.967
Recovery of OBS203				
Transit	SB_TRT	Fri 2. Mar 18:17	Fri 2. Mar 19:03	0.767
Transit to OBS202's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 19:03	Fri 2. Mar 20:39	1.600
Recovery of OBS202.				
Transit	SB_TRT	Fri 2. Mar 20:39	Fri 2. Mar 21:27	0.800
Transit to OBS201's Recovery Site				
Recovery	DM_RC	Fri 2. Mar 21:27	Fri 2. Mar 23:05	1.633
Recovery of OBS201				
Transit	SB_TRT	Fri 2. Mar 23:05	Fri 2. Mar 23:22	0.283
Transit while preparing for streamer Deployment				
Deployment	MB_DP	Fri 2. Mar 23:22	Fri 2. Mar 24:00	0.633
Deployment of Streamer				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

2-Mar	Hours	% Percent
Chargeable Standby	**6.900**	**28.750**
Transit	6.900	28.750
Demobilisation	**16.467**	**68.611**
Recovery	16.467	68.611
Mobilisation	**0.633**	**2.639**
Deployment	0.633	2.639
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	% Percent
DownTime	**4.350**	**1.208**
Cetacean	4.350	1.208
Chargeable Standby	**115.983**	**32.218**
Cetacean	0.767	0.213
Transit	73.467	20.407
Weather	41.750	11.597
Mobilisation	**121.783**	**33.829**
Deployment	12.683	3.523
Mob Ashore	67.167	18.657
Transit to Prospect	41.933	11.648
Acquisition	**52.900**	**14.694**
Production Prime	52.900	14.694
Demobilisation	**64.983**	**18.051**
Recovery	64.983	18.051
Total	360.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

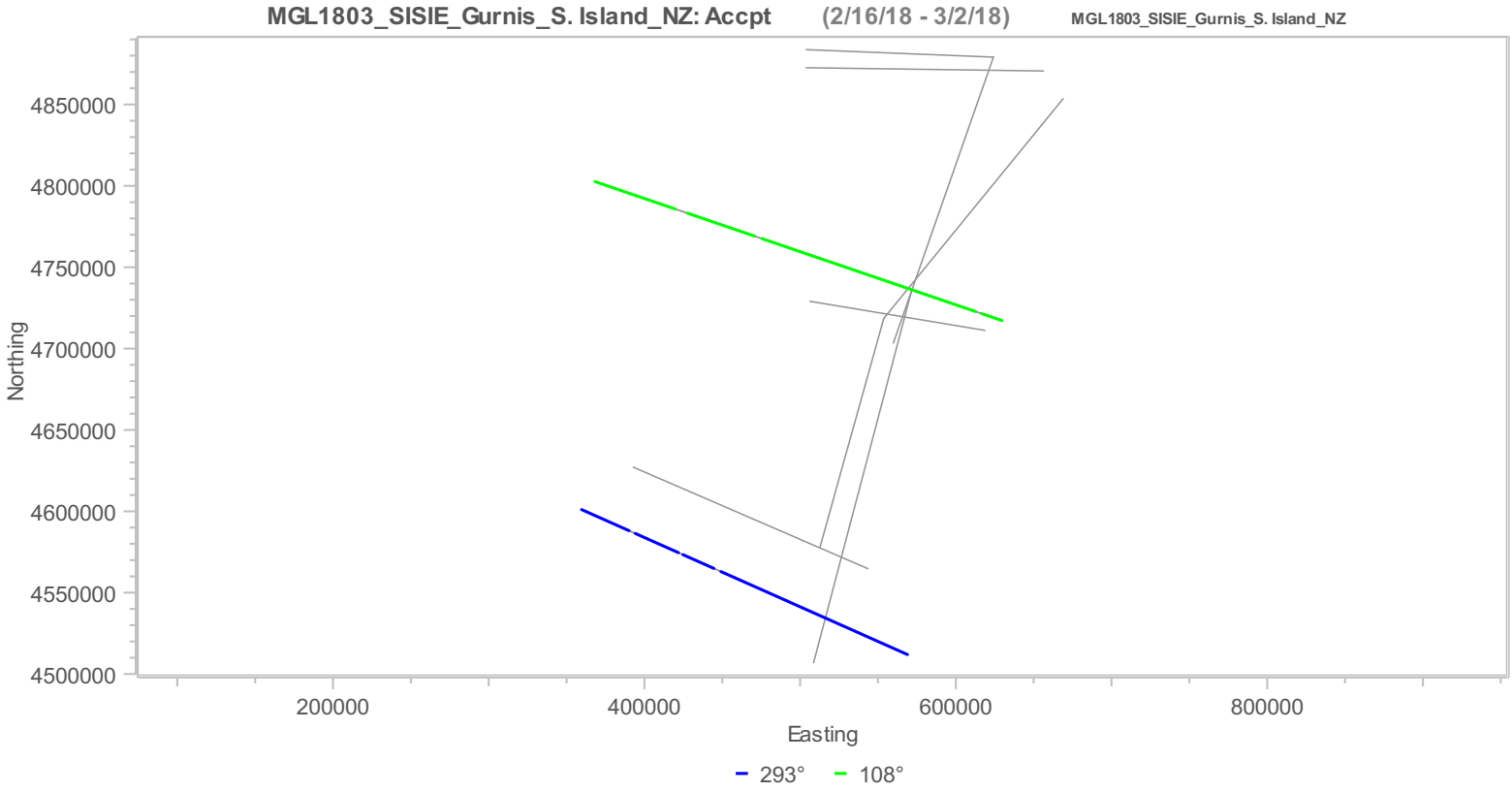
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	257.70	0.00	472.95
Infill	0.00	0.00	0.00	0.00
Combined	**0.00**	**257.70**	**0.00**	**472.95**



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 02 Mar

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

Daily Comment Summaries - Personnel Onboard

Fri 02 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
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Aletta Bussenschutt RPS PSO

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Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.

Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sat 03 Mar

The Vessel started the day continuing streamer deployment and 12:15 UTC the streamer was fully deployed on the soft tow. Source Deployment began at that time an continued until 16:10 UTC. From then until 17:57 UTC the vessel was in stand by mode for fog as the PSO could not complete the pre-clearance of the EZ around the source. At 18:17 UTC the source was full ramped up and at 18:58 UTC the vessel began production on Line MGL1803MCS01. Acquisition continued throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Sat 03 Mar

The Vessel will start the day continuing acquisition of data on MGL1803MCS01. It is expected to continue in this mode throughout the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Deployment	MB_DP	Sat 3. Mar 00:00	Sat 3. Mar 12:43	12.717
Deployment of Streamer				
Deployment	MB_DP	Sat 3. Mar 12:43	Sat 3. Mar 13:19	0.600
Mobilising offshore, deploying outboard equipment.				
Deployment	MB_DP	Sat 3. Mar 13:19	Sat 3. Mar 14:25	1.100
Deployment of Source Sub-arrays 1 & 2				
Transit	SB_TRT	Sat 3. Mar 14:25	Sat 3. Mar 15:06	0.683
Maneuvering - Circling back on on Line MGL1803MCS01 to continue deployment of Source and to Standby for FOG to clear.				
Deployment	MB_DP	Sat 3. Mar 15:06	Sat 3. Mar 16:10	1.067
Deployment of Source Sub-Arrays 3 & 4.				
Weather	SB_WX	Sat 3. Mar 16:10	Sat 3. Mar 17:26	1.267
Chargeable standby due to weather. Awaiting for FOG to clear so the PSO can clear the EZ for Ramp-up.				
Cetacean	SB_CT	Sat 3. Mar 17:26	Sat 3. Mar 17:57	0.517
Fog has lifted - Conducting PSO Pre-Clearance of EZ				
Cetacean	SB_CT	Sat 3. Mar 17:57	Sat 3. Mar 18:17	0.333
Ramping up of Seismic Source				
Transit	SB_TRT	Sat 3. Mar 18:17	Sat 3. Mar 18:58	0.683
En route to start of Line MGL1803MCS01				
Production Prime	AC_PP	Sat 3. Mar 18:58	Sat 3. Mar 24:00	5.033

Category	Code	Start	End	Duration
SOL Seq 3 Line:MGL1803MC01 FGSP=833 FCSP=833 Hdg=108.1° Prime				
MSP Seq 3 Line:MGL1803MC01 LGSP=1703 LCSP=1703 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

3-Mar	Hours	%Percent
Acquisition	**5.033**	**20.972**
Production Prime	5.033	20.972
Chargeable Standby	**3.483**	**14.514**
Cetacean	0.850	3.542
Transit	1.367	5.694
Weather	1.267	5.278
Mobilisation	**15.483**	**64.514**
Deployment	15.483	64.514
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**4.350**	**1.133**
Cetacean	4.350	1.133
Chargeable Standby	**119.467**	**31.111**
Cetacean	1.617	0.421
Transit	74.833	19.488
Weather	43.017	11.202
Mobilisation	**137.267**	**35.747**
Deployment	28.167	7.335
Mob Ashore	67.167	17.491
Transit to Prospect	41.933	10.920
Acquisition	**57.933**	**15.087**
Production Prime	57.933	15.087
Demobilisation	**64.983**	**16.923**
Recovery	64.983	16.923
Total	384.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m

MGL1803_SISIE_Gurnis_S. Island_NZ					
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

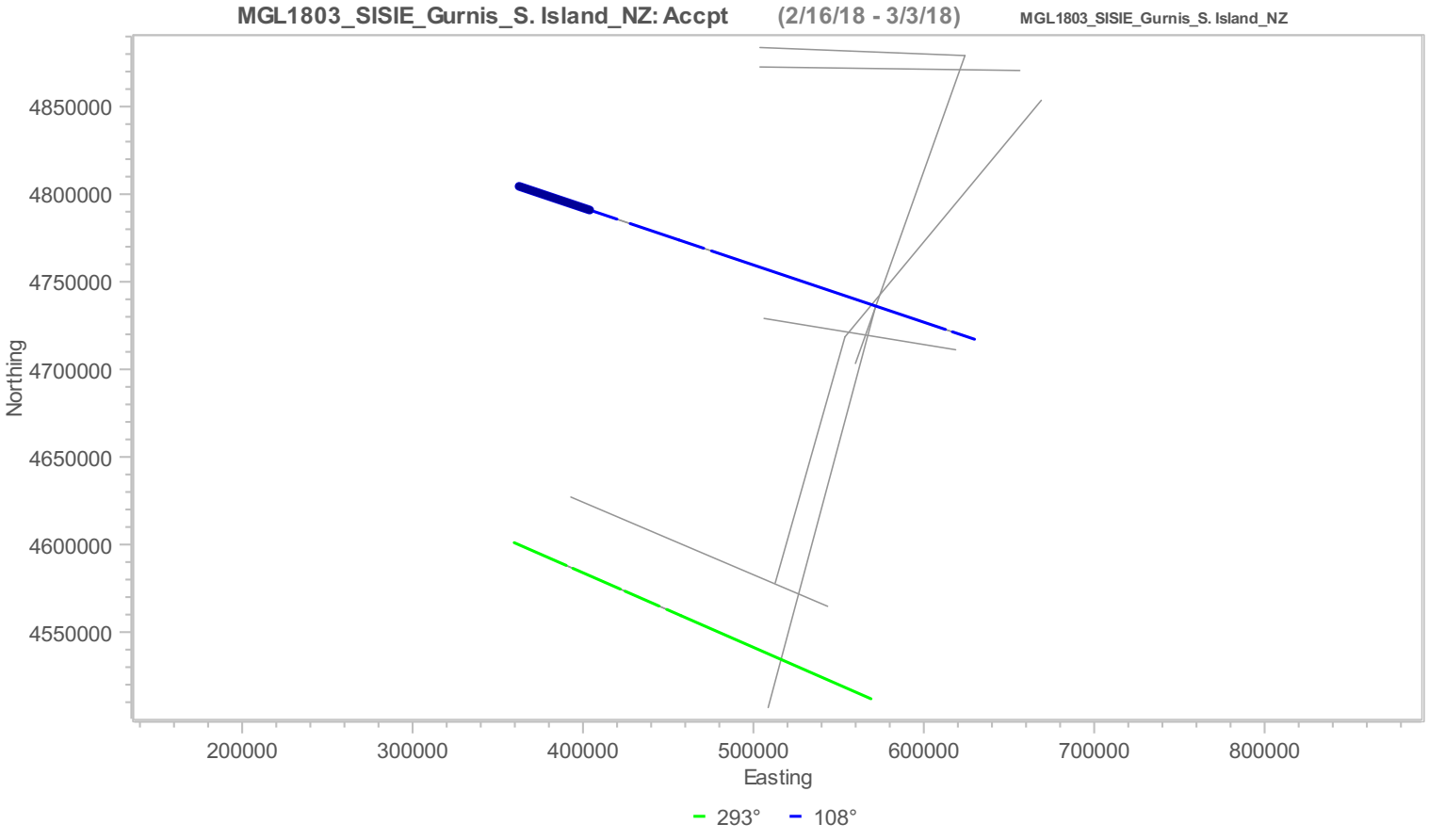
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
3	MC01	108.1	833	1703	Prime	43.50	4.667	Part	Midnight
Total						**43.50**			

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

Charged km	Day	Week	Month	Project
Prime	43.50	301.20	43.50	516.45
Infill	0.00	0.00	0.00	0.00
Combined	**43.50**	**301.20**	**43.50**	**516.45**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 03 Mar

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 the Deployment of the Streamer - the line on the brake band for streamer reel #3 failed. The Mechanics are in the process of changing out the brake bands with the spare set we had on-board. It is also worthy to note that the brake band liner for streamer reel #4 has also failed. This reel is not currently in use, so repairs will be made to it during the upcoming maintenance period.

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 03 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
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Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

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Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sun 04 Mar

The Vessel started the day continuing production on Line MGL1803MCS01 and acquisition continued throughout the remainder of the day. The weather did pickup and the streamer was moved deeper (10m to 12m) in the water column to reduce the swell noise.

Daily Comment Summaries - Plan for Tomorrow

Sun 04 Mar

The Vessel will start the day continuing acquisition of data on MGL1803MCS01. It is expected to continue in this mode throughout the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sun 4. Mar 00:00	Sun 4. Mar 24:00	24.000
SOL Seq 3 Line:MGL1803MC01 FGSP=1704 FCSP=1704 Hdg=108.1° Prime MSP Seq 3 Line:MGL1803MC01 LGSP=5615 LCSP=5615 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

4-Mar	Hours	%Percent
Acquisition	**24.000**	**100.000**
Production Prime	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**4.350**	**1.066**
Cetacean	4.350	1.066
Chargeable Standby	**119.467**	**29.281**
Cetacean	1.617	0.396
Transit	74.833	18.342
Weather	43.017	10.543
Mobilisation	**137.267**	**33.644**
Deployment	28.167	6.904
Mob Ashore	67.167	16.462
Transit to Prospect	41.933	10.278
Acquisition	**81.933**	**20.082**

Category	Hours	%Percent
Production Prime	81.933	20.082
Demobilisation	**64.983**	**15.927**
Recovery	64.983	15.927
Total	408.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

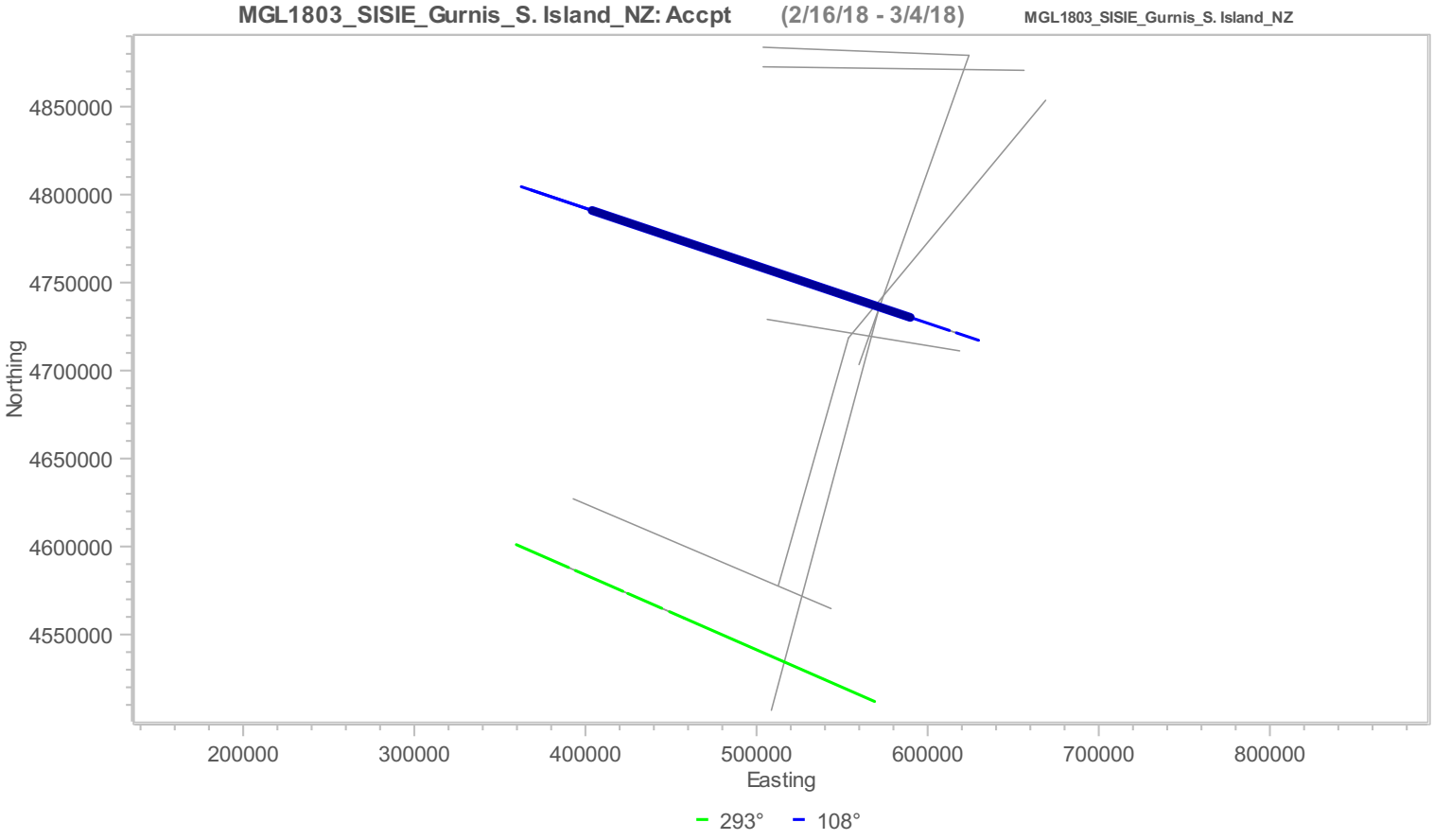
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
3	MC01	108.1	1704	5615	Prime	195.60	4.401	Part	Midnight
Total						**195.60**			

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

Charged km	Day	Week	Month	Project
Prime	195.60	496.80	239.10	712.05
Infill	0.00	0.00	0.00	0.00
Combined	**195.60**	**496.80**	**239.10**	**712.05**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 04 Mar

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):
The Brake band on streamer reel #3 has been replaced with the spare and work on cleaning up an repairing the old one is ongoing.

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 04 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Mon 05 Mar

The Vessel started the day continuing production on Line MGL1803MCS01 which concluded at 05:10 UTC. The vessel made a line change and started line MGL1803MCS03a at 08:31 UTC. This line continued throughout the rest of the day. During the Morning hours on Line MCS03a there was a couple of Mitigation Actions due to PAM Detections, which required a power down and following ramp up of the source.

Daily Comment Summaries - Plan for Tomorrow

Mon 05 Mar

The Vessel will start the day continuing acquisition of data on MGL1803MCS03a. This line is expected to end at ~00:18 UTC the vessel will make a line change to Line MGL1803T01 which is expected to start at 02:34 UTC and continue until ~10:30 UTC. At that time another line change will be made and the vessel is expected to start line MGL1803MCS23a at ~12:15 UTC an continue throughout the remainder of the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Mon 5. Mar 00:00	Mon 5. Mar 05:10	5.167
SOL Seq 3 Line:MGL1803MC01 FGSP=5616 FCSP=5616 Hdg=108.1° Prime EOL Seq 3 Line:MGL1803MC01 LGSP=6465 LCSP=6465 Complete				
Prime Line Change	AC_PLC	Mon 5. Mar 05:10	Mon 5. Mar 08:31	3.350
Nominal Prime line change.				
Production Prime	AC_PP	Mon 5. Mar 08:31	Mon 5. Mar 11:15	2.733
SOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 FGSP=984 FCSP=984 Hdg=279° Prime EOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 LGSP=1449 LCSP=1449 Incomplete				
Cetacean	DT_CT	Mon 5. Mar 11:15	Mon 5. Mar 12:32	1.283
NTBP Seq 4 FSP=1450 LSP=1639 PAM Detection - Power down of Source for Dolphin's				
Production Prime	AC_PP	Mon 5. Mar 12:32	Mon 5. Mar 12:58	0.433
SOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 FGSP=1640 FCSP=1640 Hdg=279° Prime EOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 LGSP=1705 LCSP=1705 Incomplete				
Cetacean	DT_CT	Mon 5. Mar 12:58	Mon 5. Mar 13:45	0.783
NTBP Seq 4 FSP=1706 LSP=1829 PAM Detection - Power down of Source for Dolphin's				
Production Prime	AC_PP	Mon 5. Mar 13:45	Mon 5. Mar 24:00	10.250
SOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 FGSP=1830 FCSP=1830 Hdg=279° Prime				

Category	Code	Start	End	Duration
MSP Seq 4 Line:MGL1803MCS03APreplot:MC03 LGSP=3364 LCSP=3364 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

5-Mar	Hours	%Percent
Acquisition	**21.933**	**91.389**
Prime Line Change	3.350	13.958
Production Prime	18.583	77.431
DownTime	**2.067**	**8.611**
Cetacean	2.067	8.611
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**6.417**	**1.485**
Cetacean	6.417	1.485
Chargeable Standby	**119.467**	**27.654**
Cetacean	1.617	0.374
Transit	74.833	17.323
Weather	43.017	9.958
Mobilisation	**137.267**	**31.775**
Deployment	28.167	6.520
Mob Ashore	67.167	15.548
Transit to Prospect	41.933	9.707
Acquisition	**103.867**	**24.043**
Prime Line Change	3.350	0.775
Production Prime	100.517	23.268
Demobilisation	**64.983**	**15.042**
Recovery	64.983	15.042
Total	432.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins

MGL1803_SISIE_Gurnis_S. Island_NZ					
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

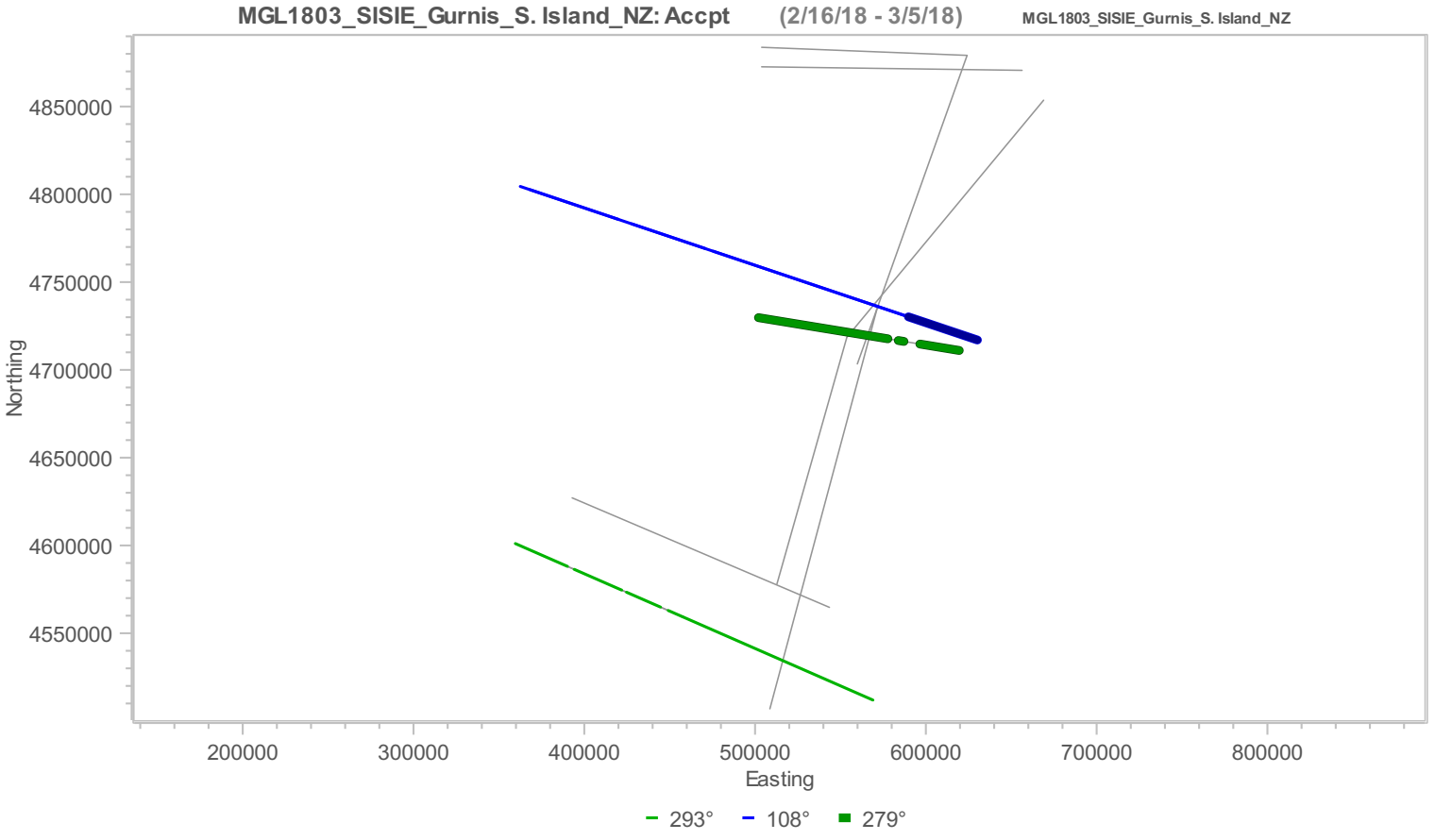
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
3	MC01	108.1	5616	6465	Prime	42.50	4.442	Complete	Complete
4	MCS03A	279.0	984	3364	Prime	103.30	2.458	Part	Midnight
NTBP: 1450 - 1639 (not chgd), NTBP: 1706 - 1829 (not chgd)									
Total						**145.80**			

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

Charged km	Day	Week	Month	Project
Prime	145.80	145.80	384.90	857.85
Infill	0.00	0.00	0.00	0.00
Combined	**145.80**	**145.80**	**384.90**	**857.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 05 Mar

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

Daily Comment Summaries - Personnel Onboard

Mon 05 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

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Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
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Aletta Bussenschutt RPS PSO

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Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Tue 06 Mar

The Vessel started the day continuing production on Line MGL1803MCS03a which concluded at 00:18 UTC. The vessel made a line change to Line MGL1803MCST01 which started at 02:34 UTC and concluded at 10:29 UTC. The vessel made another line change to Line MGL1803MCS23a which started at 11:52 and continued throughout the remainder of the day. On Line MCS23a there was multiple PSO Mitigation Action, which required a power downs and following ramp ups of the source.

Daily Comment Summaries - Plan for Tomorrow

Tue 06 Mar

The Vessel will start the day continuing acquisition of data on MGL1803MCS23b. The Line continued until 09:49 UTC at which time it was aborted due to Weather and the Source Sub-Arrays getting tangled. The Source was onboard by 12:06 UTC and the vessel was making repairs while heading back to rejoin the line which is expected to happen at ~20:30 UTC. The vessel will remain on the line for the remainder of the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Tue 6. Mar 00:00	Tue 6. Mar 00:18	0.300
SOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 FGSP=3365 FCSP=3365 Hdg=279° Prime EOL Seq 4 Line:MGL1803MCS03A Preplot:MC03 LGSP=3409 LCSP=3409 Complete				
Prime Line Change	AC_PLC	Tue 6. Mar 00:18	Tue 6. Mar 02:34	2.267
Nominal Prime line change.				
Production Prime	AC_PP	Tue 6. Mar 02:34	Tue 6. Mar 10:29	7.917
SOL Seq 5 Line:MGL1803T01 Preplot: FGSP=1277 FCSP=1277 Hdg=75° Prime EOL Seq 5 Line:MGL1803T01 Preplot: LGSP=2546 LCSP=2546 Complete				
Prime Line Change	AC_PLC	Tue 6. Mar 10:29	Tue 6. Mar 11:52	1.383
Nominal Prime line change.				
Production Prime	AC_PP	Tue 6. Mar 11:52	Tue 6. Mar 21:17	9.417
SOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 FGSP=874 FCSP=874 Hdg=195.4° Prime EOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 LGSP=2362 LCSP=2362 Incomplete				
Cetacean	DT_CT	Tue 6. Mar 21:17	Tue 6. Mar 21:54	0.617
NTBP Seq 6 FSP=2363 LSP=2466 Power down for PSO Sighting				
Production Prime	AC_PP	Tue 6. Mar 21:54	Tue 6. Mar 23:26	1.533

Category	Code	Start	End	Duration
SOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 FGSP=2467 FCSP=2467 Hdg=195.4° Prime EOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 LGSP=2728 LCSP=2728 Incomplete				
Cetacean	DT_CT	Tue 6. Mar 23:26	Tue 6. Mar 24:00	0.567
NTBP Seq 6 FSP=2729 LSP=2821 Power down for PSO Sighting				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

6-Mar	Hours	%Percent
Acquisition	**22.817**	**95.069**
Prime Line Change	3.650	15.208
Production Prime	19.167	79.861
DownTime	**1.183**	**4.931**
Cetacean	1.183	4.931
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**7.600**	**1.667**
Cetacean	7.600	1.667
Chargeable Standby	**119.467**	**26.199**
Cetacean	1.617	0.355
Transit	74.833	16.411
Weather	43.017	9.433
Mobilisation	**137.267**	**30.102**
Deployment	28.167	6.177
Mob Ashore	67.167	14.730
Transit to Prospect	41.933	9.196
Acquisition	**126.683**	**27.781**
Prime Line Change	7.000	1.535
Production Prime	119.683	26.246
Demobilisation	**64.983**	**14.251**
Recovery	64.983	14.251
Total	456.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m

MGL1803_SISIE_Gurnis_S. Island_NZ					
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

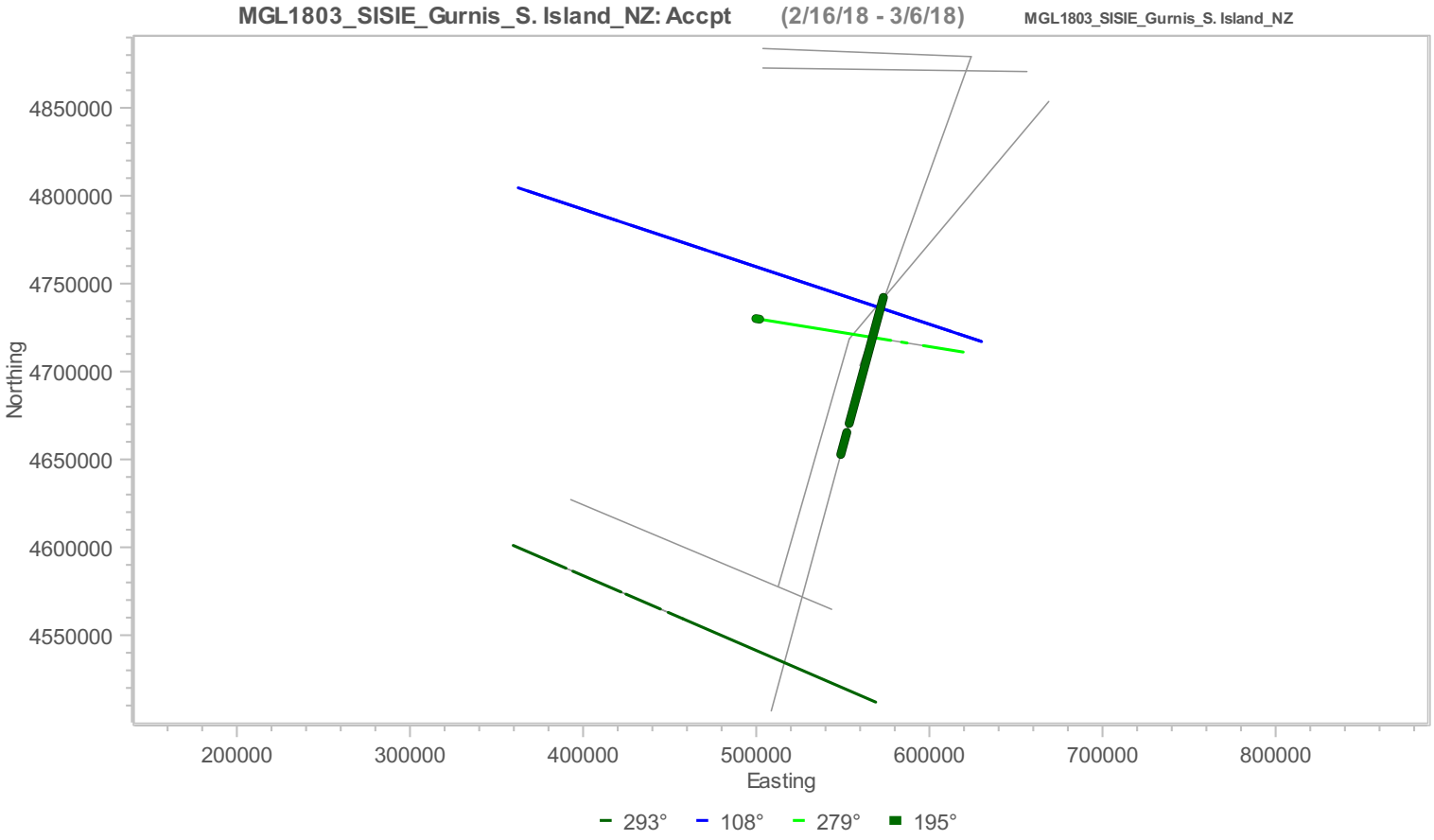
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
4	MCS03A	279.0	3365	3409	Prime	2.25	4.050	Complete	Complete
5	T01	75.0	1277	2546	Prime	63.45	4.328	Complete	Complete
6	MCS23A	195.4	874	N/A	Prime	87.50	2.250	Part	Midnight
NTBP: 2363 - 2466 (not chgd), NTBP: 2729 - 2821 (not chgd)									
Total						**153.20**			

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

Charged km	Day	Week	Month	Project
Prime	153.20	299.00	538.10	1011.05
Infill	0.00	0.00	0.00	0.00
Combined	**153.20**	**299.00**	**538.10**	**1011.05**



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 06 Mar

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):
After Sub-Array Tangling - Multiple Depth Ropes need to be changed as well as a complete inspection of Sub-Arrays 2, 3, & 4.

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Tue 06 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
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Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

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Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Wed 07 Mar

The Vessel started the day continuing production on Line MGL1803MCS23a which concluded at 09:49 UTC due to source dub-arrays 1, 2, and 3 Tangled together.. From 09:49 UTC to 12:06 UTC was spent un-tangling and recovering Source Sub-Arrays 2, 3, and 4. From 12:06 UTC to 18:57 UTC was spent down for weather and making repairs to source sub-arrays while circling around towards the line. From 18:57 UTC to 21:00 UTC the Source was re-deployed and ramped up and at 21:11 UTC production restarted on Line MGL1803MCS23b. Production continued throughout the remainder of the day.

Weather is still and issue and the streamer remained at 18m depth throughout the day.

Daily Comment Summaries - Plan for Tomorrow

Wed 07 Mar

The Vessel will start the day continuing acquisition of data on MGL1803MCS23b, which should conclude at 08:42 UTC. At that time the vessel made a line change to MGL1803T02. Once Line T02 is completed the vessel will make a line change to MCS14, which it should continue on throughout the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Wed 7. Mar 00:03	Wed 7. Mar 01:28	1.417
SOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 FGSP=2832 FCSP=2832 Hdg=195.4° Prime EOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 LGSP=3063 LCSP=3063 Incomplete				
Cetacean	DT_CT	Wed 7. Mar 01:28	Wed 7. Mar 02:08	0.667
NTBP Seq 6 FSP=3064 LSP=3173 Power down for PSO Sighting				
Production Prime	AC_PP	Wed 7. Mar 02:08	Wed 7. Mar 09:49	7.683
SOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 FGSP=3174 FCSP=3174 Hdg=195.4° Prime EOL Seq 6 Line:MGL1803MCS23A Preplot:MC23 LGSP=4370 LCSP=4370 Incomplete				
Weather	SB_WX	Wed 7. Mar 09:49	Wed 7. Mar 12:06	2.283
Recovering Source Sub-Arrays 2, 3, and 4 after Tangling Due to Weather conditions.				
Weather	SB_WX	Wed 7. Mar 12:06	Wed 7. Mar 15:00	2.900
Chargeable standby due to weather. Source on-board turning around to stay close to the start of line while repairs are made to the Source Sub-Arrays.				
Weather	SB_WX	Wed 7. Mar 15:00	Wed 7. Mar 18:57	3.950
Standby for Weather				
Weather	SB_WX	Wed 7. Mar 18:57	Wed 7. Mar 21:11	2.233
Deploying Source and Ramping Up for Line MGL1803MCS23b				

Category	Code	Start	End	Duration
Production Infill	AC_PI	Wed 7. Mar 21:11	Wed 7. Mar 21:16	0.083
SOL Seq 7 Line:MGL1803MCs23b Preplot:MC23 FGSP=4360 FCSP=4360 Hdg=195.4° Infill EOL Seq 7 Line:MGL1803MCs23b Preplot:MC23 LGSP=4369 LCSP=4369 Complete				
Production Prime	AC_PP	Wed 7. Mar 21:16	Wed 7. Mar 24:00	2.733
SOL Seq 7 Line:MGL1803MCS23b Preplot:MC23 FGSP=4370 FCSP=4370 Hdg=195.4° Prime MSP Seq 7 Line:MGL1803MCS23b Preplot:MC23 LGSP=4715 LCSP=4715 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

7-Mar	Hours	%Percent
Acquisition	**11.917**	**49.653**
Production Infill	0.083	0.347
Production Prime	11.833	49.306
Chargeable Standby	**11.367**	**47.361**
Weather	11.367	47.361
DownTime	**0.667**	**2.778**
Cetacean	0.667	2.778
Day's Total	**23.950**	**99.792**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**8.267**	**1.722**
Cetacean	8.267	1.722
Chargeable Standby	**130.833**	**27.260**
Cetacean	1.617	0.337
Transit	74.833	15.592
Weather	54.383	11.331
Mobilisation	**137.267**	**28.600**
Deployment	28.167	5.869
Mob Ashore	67.167	13.995
Transit to Prospect	41.933	8.737
Acquisition	**138.600**	**28.878**
Prime Line Change	7.000	1.458
Production Infill	0.083	0.017
Production Prime	131.517	27.402
Demobilisation	**64.983**	**13.540**
Recovery	64.983	13.540
Total	479.950	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

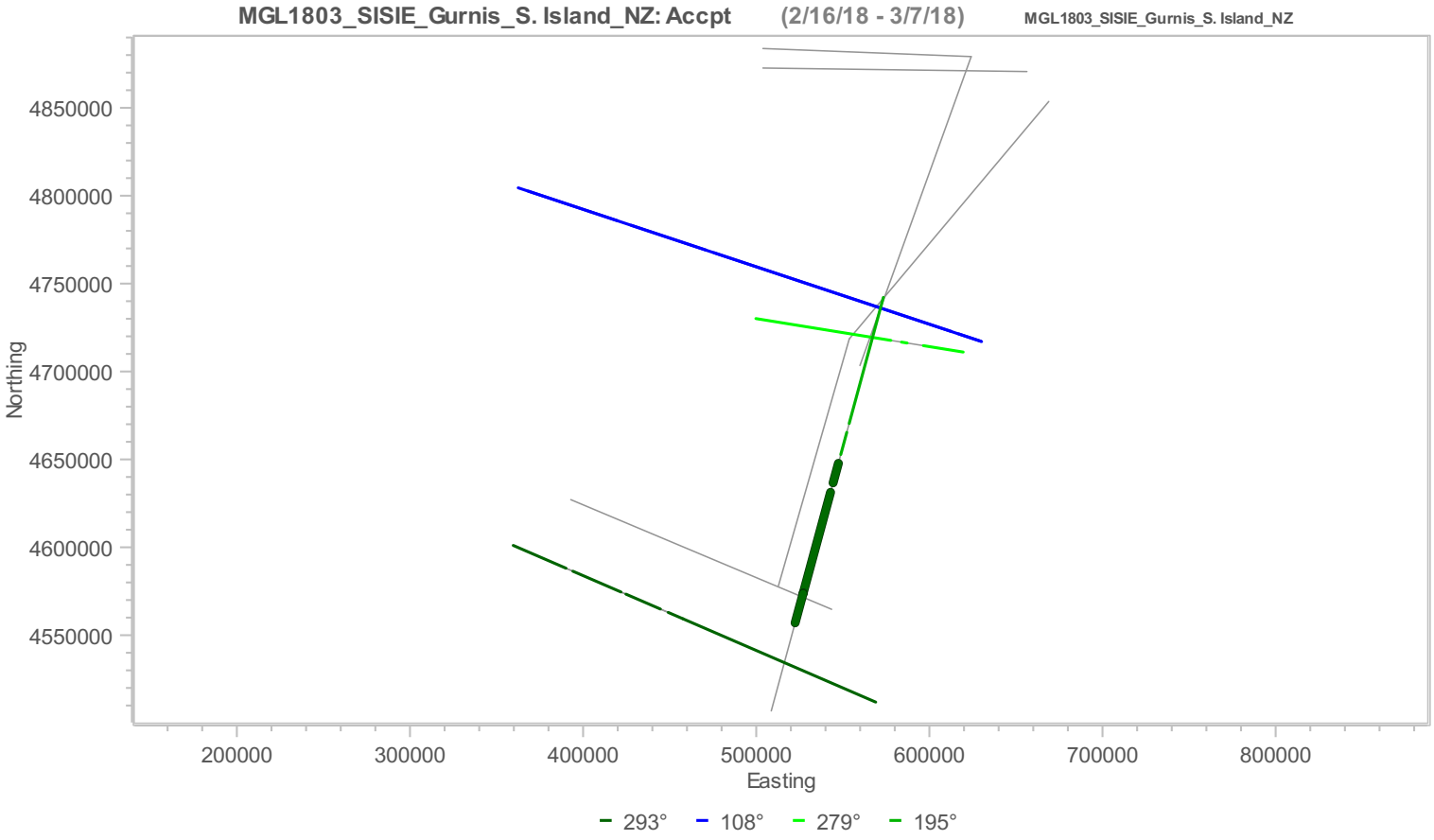
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
6	MCS23A	195.4	N/A	4370	Prime	71.45	3.414	Complete	Incomplete
NTBP: 2822 - 2831 (not chgd), NTBP: 3064 - 3173 (not chgd)									
7	MCs23b	195.4	4360	4369	Infill	0.45	2.916	Complete	Complete
7	MCS23b	195.4	4370	4715	Prime	17.25	3.408	Part	Midnight
Total						**89.15**			

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

Charged km	Day	Week	Month	Project
Prime	88.70	387.70	626.80	1099.75
Infill	0.45	0.45	0.45	0.45
Combined	**89.15**	**388.15**	**627.25**	**1100.20**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 07 Mar

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):
After Sub-Array Tangling - Multiple Depth Ropes and a couple of Jumpers needed to be changed as well as a complete inspection of Sub-Arrays 2, 3, & 4.

General Purpose Science:
Erratic reading from MicroSV - so changed it out with a spare.

Daily Comment Summaries - Personnel Onboard

Wed 07 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

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Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Thu 08 Mar

The Vessel started the day continuing production on Line MGL1803MCS22b, which conlucded at 08:42 UTC. At that time the vessel made a line change to Line MGL1803T02 which started at 10:38 UTC and was aborted early due to Streamer on the surface at 11:48 UTC. From 11:48 UTC to 19:23 UTC the vessel remained down for weather. At 19:23 UTC Line MGL1803MCS14 (OBS01) started and continued throughout the day.

Daily Comment Summaries - Plan for Tomorrow

Thu 08 Mar

The Vessel will start the day continuing acquisition of data on MGL1803MCS14 (OBS01), which should continue on throughout the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Thu 8. Mar 00:00	Thu 8. Mar 05:33	5.550
SOL Seq 7 Line:MGL1803MCS23b Preplot:MC23 FGSP=4716 FCSP=4716 Hdg=195.4° Prime EOL Seq 7 Line:MGL1803MCS23b Preplot:MC23 LGSP=5435 LCSP=5435 Incomplete				
Cetacean	DT_CT	Thu 8. Mar 05:33	Thu 8. Mar 06:13	0.667
NTBP Seq 7 FSP=5436 LSP=5529 Power down for PSO Sighting				
Production Prime	AC_PP	Thu 8. Mar 06:13	Thu 8. Mar 08:42	2.483
SOL Seq 7 Line:MGL1803MCS23b Preplot:MC23 FGSP=5530 FCSP=5530 Hdg=195.4° Prime EOL Seq 7 Line:MGL1803MCS23b Preplot:MC23 LGSP=5886 LCSP=5886 Complete				
Prime Line Change	AC_PLC	Thu 8. Mar 08:42	Thu 8. Mar 10:38	1.933
Nominal Prime line change.				
Production Prime	AC_PP	Thu 8. Mar 10:38	Thu 8. Mar 11:48	1.167
SOL Seq 8 Line:MGL1803T02 Preplot: FGSP=1237 FCSP=1237 Hdg=72.3° Prime EOL Seq 8 Line:MGL1803T02 Preplot: LGSP=1397 LCSP=1397 Complete				
Weather	SB_WX	Thu 8. Mar 11:48	Thu 8. Mar 19:23	7.583
Chargeable standby due to weather.				
Production Infill	AC_PI	Thu 8. Mar 19:23	Thu 8. Mar 24:00	4.617
SOL Seq 9 Line:MGL1803mc14 Preplot:MC14 FGSP=957 FCSP=957 Hdg=293° Infill MSP Seq 9 Line:MGL1803mc14 Preplot:MC14 LGSP=1646 LCSP=1646 Midnight				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

8-Mar	Hours	%Percent
Acquisition	**15.750**	**65.625**
Prime Line Change	1.933	8.056
Production Infill	4.617	19.236
Production Prime	9.200	38.333
Chargeable Standby	**7.583**	**31.597**
Weather	7.583	31.597
DownTime	**0.667**	**2.778**
Cetacean	0.667	2.778
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**8.933**	**1.773**
Cetacean	8.933	1.773
Chargeable Standby	**138.417**	**27.466**
Cetacean	1.617	0.321
Transit	74.833	14.849
Weather	61.967	12.296
Mobilisation	**137.267**	**27.238**
Deployment	28.167	5.589
Mob Ashore	67.167	13.328
Transit to Prospect	41.933	8.321
Acquisition	**154.350**	**30.628**
Prime Line Change	8.933	1.773
Production Infill	4.700	0.933
Production Prime	140.717	27.923
Demobilisation	**64.983**	**12.895**
Recovery	64.983	12.895
Total	503.950	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					

MGL1803_SISIE_Gurnis_S. Island_NZ					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

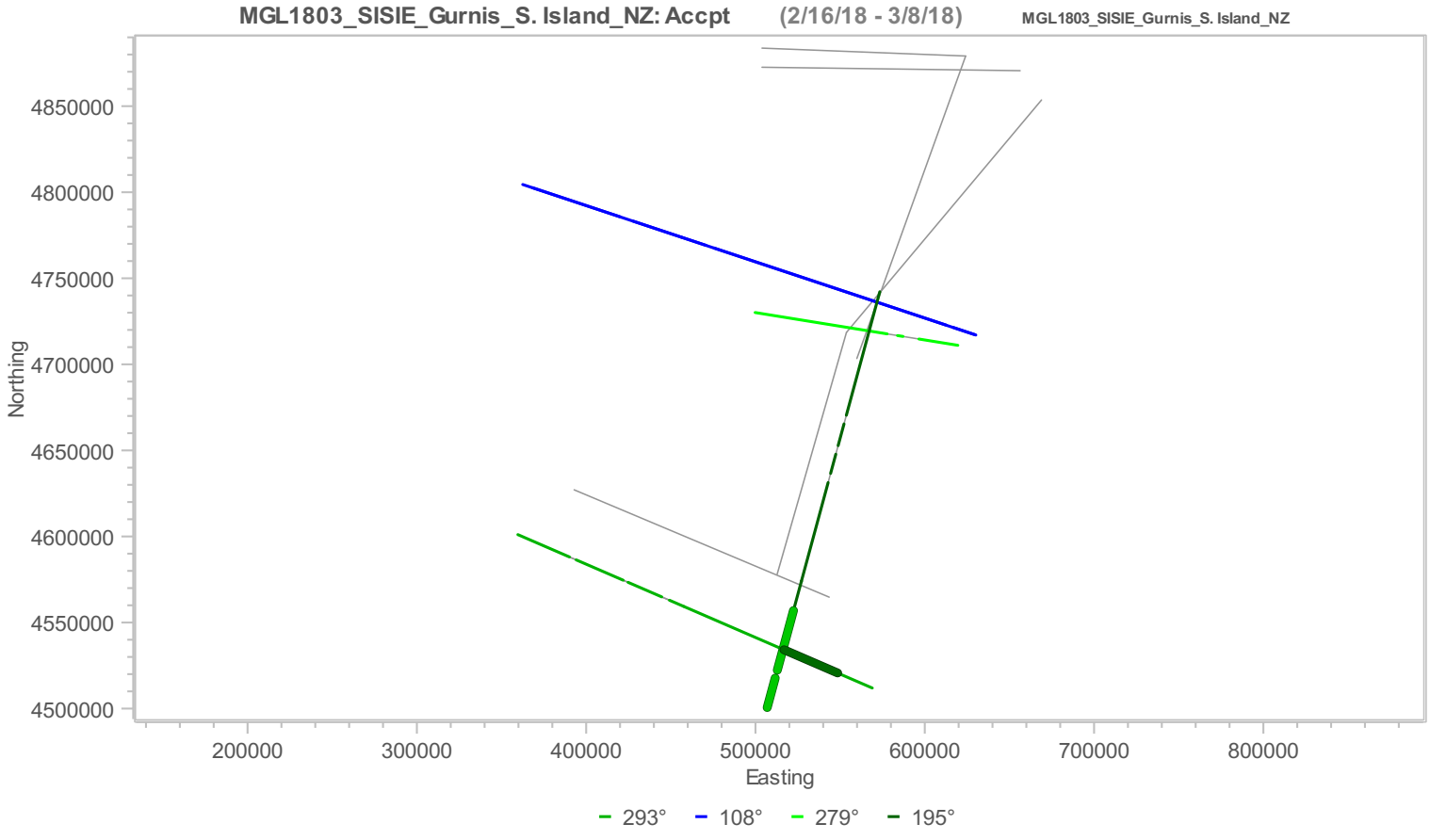
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
7	MCS23b	195.4	4716	5886	Prime	53.85	2.039	Complete	Complete
NTBP: 5436 - 5529 (not chgd)									
8	T02	72.3	1237	1397	Prime	8.00	3.703	Complete	Complete
9	mc14	293.0	957	1646	Infill	34.45	4.029	Part	Midnight
Total						**96.30**			

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

Charged km	Day	Week	Month	Project
Prime	61.85	449.55	688.65	1161.60
Infill	34.45	34.90	34.90	34.90
Combined	**96.30**	**484.45**	**723.55**	**1196.50**



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 08 Mar

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:
Erratic reading from MicroSV was due to sea state and air in the flow through system. Original Sensor was re-installed without issue.

Daily Comment Summaries - Personnel Onboard

Thu 08 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

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Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

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Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Fri 09 Mar

The Vessel started the day continuing production on Line MGL1803MCS14, which concluded at 22:35 UTC. At that time the vessel turned down wind to begin recovery of all towed equipment, so as to reconfigure the streamer to 4km. Recovery of the Source began at 22:40 UTC and continued throughout the remainder of the day.

There was two power downs for PSO sightings during the day on Line MCS14. The streamer is being reconfigured to all for fast deployment and recovery times, as well as faster shooting speed due to the shortened weather window that will be available during the final week of the mission.

Daily Comment Summaries - Plan for Tomorrow

Fri 09 Mar

The Vessel will start the day continuing the recovery of the towed equipment and reconfiguring the streamer to 4km. By 10:00 UTC all towed equipment will be on-board an the vessel will be transiting towards the SW end of Line-17a. It is expected to arrive at the streamer deployment location at ~19:30 UTC and will begin deployment of the 4km streamer and other towed equipment. It is hoped that by the end of the day all equipment is deployed and the vessel will have began acquisition on line MGL1803MCS17a heading to the NNE.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Fri 9. Mar 00:00	Fri 9. Mar 01:46	1.767
SOL Seq 9 Line:MGL1803mc14 Preplot:MC14 FGSP=1647 FCSP=1647 Hdg=293° Prime EOL Seq 9 Line:MGL1803mc14 Preplot:MC14 LGSP=1913 LCSP=1913 Incomplete				
Cetacean	DT_CT	Fri 9. Mar 01:46	Fri 9. Mar 02:40	0.900
NTBP Seq 9 FSP=1914 LSP=2040				
Production Prime	AC_PP	Fri 9. Mar 02:40	Fri 9. Mar 05:25	2.750
SOL Seq 9 Line:MGL1803mc14 Preplot:MC14 FGSP=2041 FCSP=2041 Hdg=293° Prime EOL Seq 9 Line:MGL1803mc14 Preplot:MC14 LGSP=2457 LCSP=2457 Incomplete				
Cetacean	DT_CT	Fri 9. Mar 05:25	Fri 9. Mar 06:00	0.583
NTBP Seq 9 FSP=2458 LSP=2541				
Production Prime	AC_PP	Fri 9. Mar 06:00	Fri 9. Mar 22:35	16.583
SOL Seq 9 Line:MGL1803mc14 Preplot:MC14 FGSP=2542 FCSP=2542 Hdg=293° Prime EOL Seq 9 Line:MGL1803mc14 Preplot:MC14 LGSP=5081 LCSP=5081 Complete				
Streamer Reconfig	SB_REC_SR	Fri 9. Mar 22:35	Fri 9. Mar 24:00	1.417
Recovering Source, Pam, and Maggie to Re-Configure the streamer to 4km.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

9-Mar	Hours	%Percent
Acquisition	**21.100**	**87.917**
Production Infill	0.000	0.000
Production Prime	21.100	87.917
Chargeable Standby	**1.417**	**5.903**
Reconfiguration	1.417	5.903
Streamer Reconfig	1.417	5.903
DownTime	**1.483**	**6.181**
Cetacean	1.483	6.181
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**10.467**	**1.982**
Cetacean	10.467	1.982
Chargeable Standby	**139.833**	**26.484**
Cetacean	1.617	0.306
Reconfiguration	1.417	0.268
Streamer Reconfig	1.417	0.268
Transit	74.833	14.173
Weather	61.967	11.736
Mobilisation	**137.267**	**25.997**
Deployment	28.167	5.335
Mob Ashore	67.167	12.721
Transit to Prospect	41.933	7.942
Acquisition	**175.450**	**33.229**
Prime Line Change	8.933	1.692
Production Infill	4.700	0.890
Production Prime	161.817	30.647
Demobilisation	**64.983**	**12.307**
Recovery	64.983	12.307
Total	528.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m

MGL1803_SISIE_Gurnis_S. Island_NZ					
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

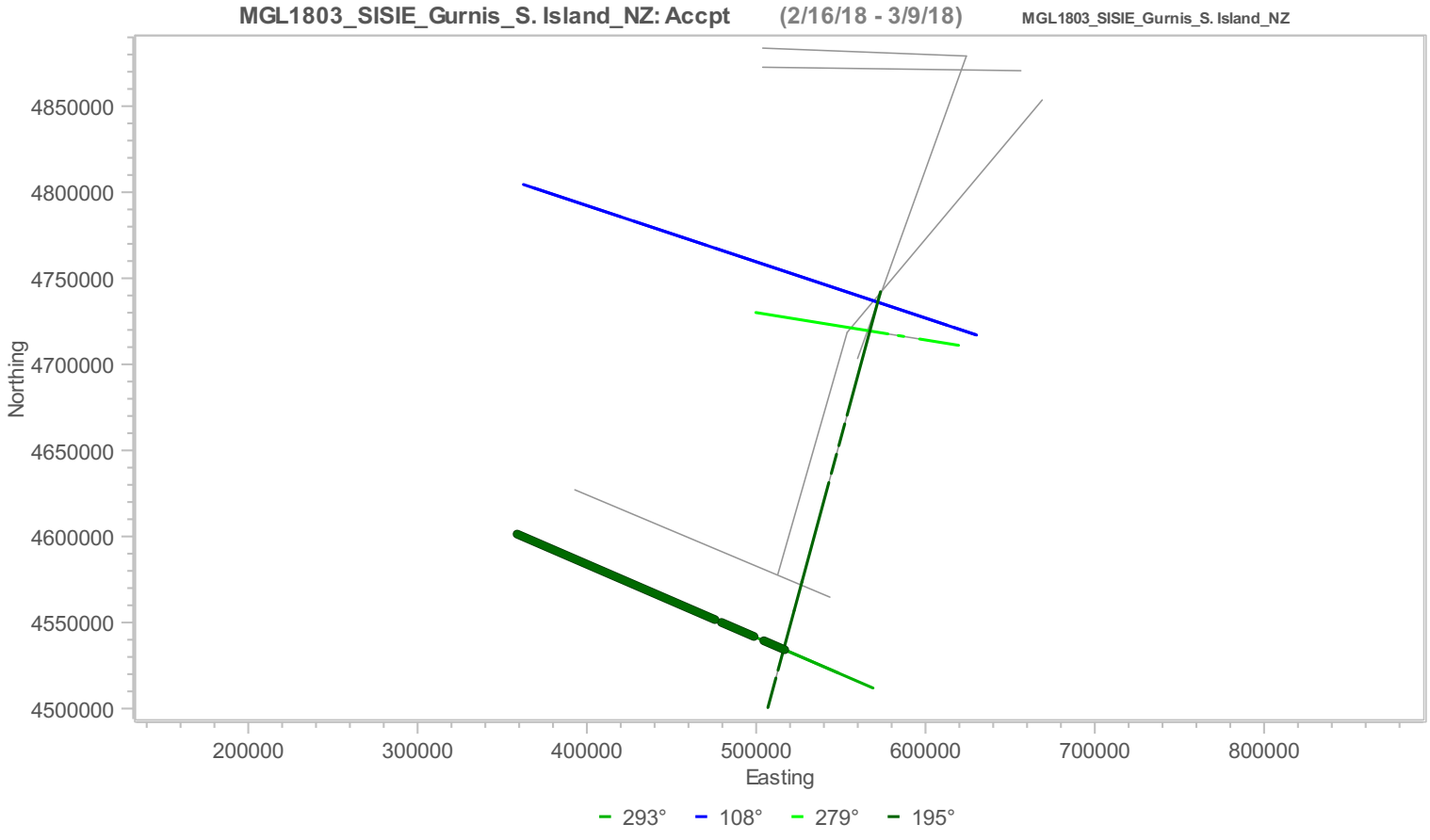
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
9	mc14	293.0	1647	5081	Prime	161.20	2.922	Complete	Complete
NTBP: 1914 - 2040 (not chgd), NTBP: 2458 - 2541 (not chgd)									
Total						**161.20**			

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

Charged km	Day	Week	Month	Project
Prime	161.20	645.20	884.30	1357.25
Infill	0.00	0.45	0.45	0.45
Combined	**161.20**	**645.65**	**884.75**	**1357.70**



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 09 Mar

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During recovery of the streamer there was 8 - DigiCourse 5011 Cable levelers (BIRDS) that were recovery damaged to due to the weather. There was also one BIRD lost at Sea (12720) and 2 - SRD's 22618 and 22669. A number of SRD's were also pulled off the collars. Most damaged BIRDS will be repaired on-board

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

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Fri 09 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
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Brooke Stanford RPS PSO / PAM operator
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Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
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Patel, Jiten Victoria U MSc student
Hertzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sat 10 Mar

The vessel started the day recovering the towed equipment to reconfigure the steamer to 4km. At 10:06 UTC the streamer was on-board and the vessel was in transit to Line MCS17a. At 17:24 UTC the vessel began deployment of the 4km streamer and other towed equipment an by 23:26 UTC the Source was ramped up an the vessel was en-route to the start of line MCS17a heeding to the NE.

Daily Comment Summaries - Plan for Tomorrow

Sat 10 Mar

The vessel should start Line MCS17a shortly after the start of the new day. Weather is expected to pickup throughout the day and at sometime production will have to be ended and the towed equipment recovered.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Streamer Reconfig	SB_REC_SR	Sat 10. Mar 00:00	Sat 10. Mar 00:35	0.583
Recovering Source, Pam, and Maggie to Re-Configure the streamer to 4km.				
Streamer Reconfig	SB_REC_SR	Sat 10. Mar 00:35	Sat 10. Mar 10:06	9.517
Recovery of Streamer to re-configure to 4km				
Transit	SB_TRT	Sat 10. Mar 10:06	Sat 10. Mar 17:24	7.300
Transit to Streamer Deployment location to SW of Line MGL1803MCS17a				
Streamer Reconfig	SB_REC_SR	Sat 10. Mar 17:24	Sat 10. Mar 20:50	3.433
Deploying Streamer.				
Streamer Reconfig	SB_REC_SR	Sat 10. Mar 20:50	Sat 10. Mar 23:05	2.250
Deploying Source				
Streamer Reconfig	SB_REC_SR	Sat 10. Mar 23:05	Sat 10. Mar 23:26	0.350
Ramping up Source				
Streamer Reconfig	SB_REC_SR	Sat 10. Mar 23:26	Sat 10. Mar 24:00	0.567
Maneuvering to start of line MGL1803MCS17a				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

10-Mar	Hours	%Percent
Chargeable Standby	**24.000**	**100.000**
Reconfiguration	16.700	69.583

10-Mar	Hours	%Percent
Streamer Reconfig	16.700	69.583
Transit	7.300	30.417
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**10.467**	**1.896**
Cetacean	10.467	1.896
Chargeable Standby	**163.833**	**29.680**
Cetacean	1.617	0.293
Reconfiguration	18.117	3.282
Streamer Reconfig	18.117	3.282
Transit	82.133	14.879
Weather	61.967	11.226
Mobilisation	**137.267**	**24.867**
Deployment	28.167	5.103
Mob Ashore	67.167	12.168
Transit to Prospect	41.933	7.597
Acquisition	**175.450**	**31.784**
Prime Line Change	8.933	1.618
Production Infill	4.700	0.851
Production Prime	161.817	29.315
Demobilisation	**64.983**	**11.772**
Recovery	64.983	11.772
Total	552.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

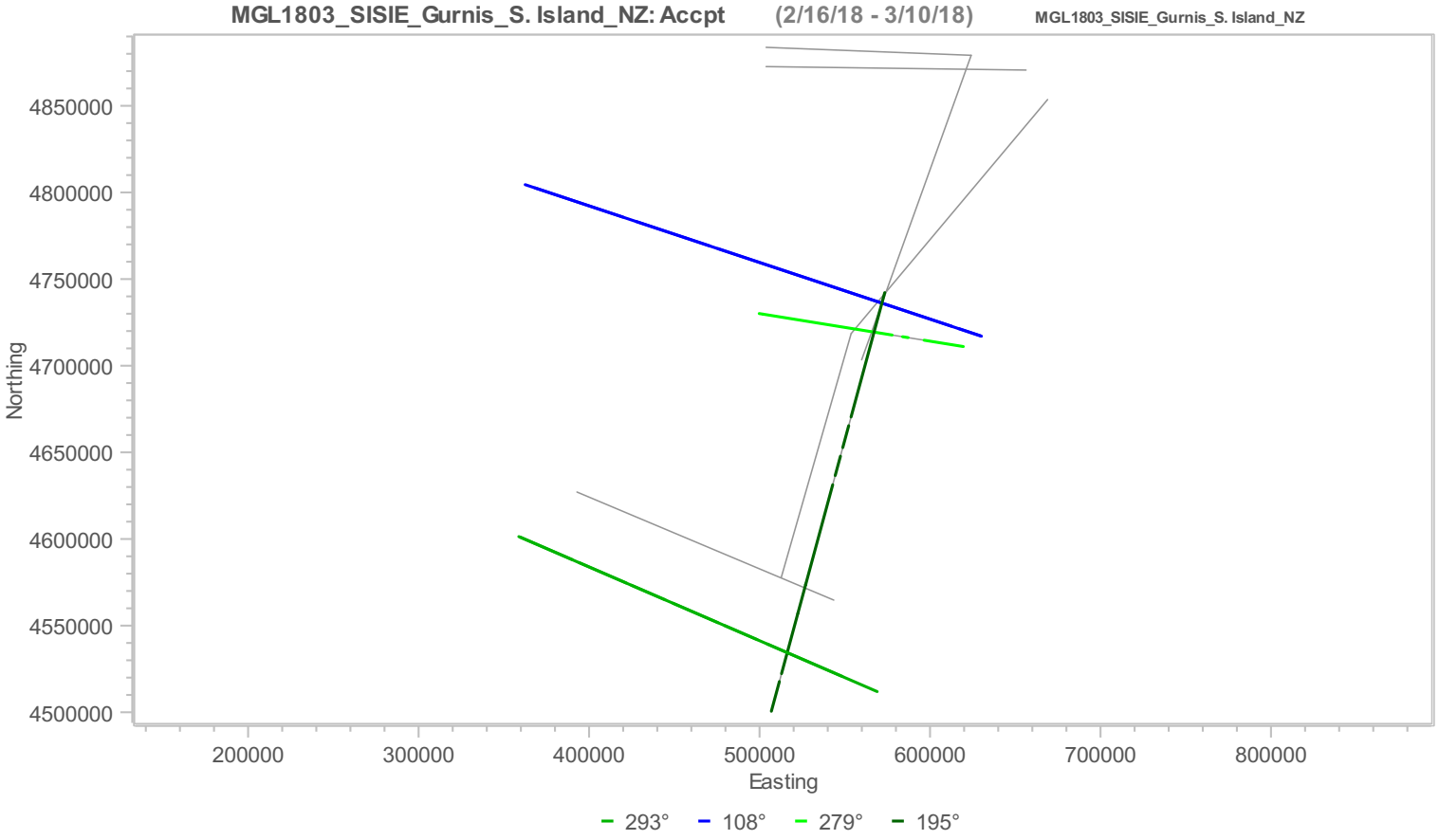
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	645.20	884.30	1357.25
Infill	0.00	0.45	0.45	0.45
Combined	**0.00**	**645.65**	**884.75**	**1357.70**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 10 Mar

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During recovery of the streamer there was 8 - DigiCourse 5011 Cable levelers (BIRDS) that were recovery damaged to due to the weather. There was also one BIRD lost at Sea (12720) and 2 - SRD's 22618 and 22669. A number of SRD's were also pulled off the collars. Most damaged BIRDS will be repaired on-board

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

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sat 10 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
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Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
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Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

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Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sun 11 Mar

The vessel started the day recovering the towed equipment to reconfigure the steamer to 4km. At 10:06 UTC the streamer was on-board and the vessel was in transit to Line MCS17a. At 17:24 UTC the vessel began deployment of the 4km streamer and other towed equipment an by 23:26 UTC the Source was ramped up an the vessel was en-route to the start of line MCS17a heeding to the NE.

Daily Comment Summaries - Plan for Tomorrow

Sun 11 Mar

The vessel should start Line MCS17a shortly after the start of the new day. Weather is expected to pickup throughout the day and at sometime production will have to be ended and the towed equipment recovered.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Streamer Reconfig	SB_REC_SR	Sun 11. Mar 00:00	Sun 11. Mar 00:20	0.333
Maneuvering to start of line MGL1803MCS17a				
Production Prime	AC_PP	Sun 11. Mar 00:20	Sun 11. Mar 01:21	1.017
SOL Seq 10 Line:MGL1803MCS17A Preplot:MC17 FGSP=972 FCSP=972 Hdg=40.5° Prime EOL Seq 10 Line:MGL1803MCS17A Preplot:MC17 LGSP=1172 LCSP=1172 Complete				
Cetacean	DT_CT	Sun 11. Mar 01:21	Sun 11. Mar 03:07	1.767
PAM cable tangled in Sub-Array #4				
Production Prime	AC_PP	Sun 11. Mar 03:07	Sun 11. Mar 12:11	9.067
SOL Seq 11 Line:MGL1803MCS17A Preplot:MC17 FGSP=1296 FCSP=1296 Hdg=40.5° Prime EOL Seq 11 Line:MGL1803MCS17A Preplot:MC17 LGSP=2719 LCSP=2719 Complete				
Weather	SB_WX	Sun 11. Mar 12:11	Sun 11. Mar 19:04	6.883
Standing by for Weather. Streamer 2 and Sub-Arrays 3 and 4 still in the water. Waiting on deck conditions to improve before recovery begins.				
Weather	SB_WX	Sun 11. Mar 19:04	Sun 11. Mar 20:14	1.167
Recovering Sub-Array # 3 and 4.				
Weather	SB_WX	Sun 11. Mar 20:14	Sun 11. Mar 22:23	2.150
Recovering Streamer #2				
Weather	SB_WX	Sun 11. Mar 22:23	Sun 11. Mar 24:00	1.617
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

11-Mar	Hours	%Percent
Acquisition	**10.083**	**42.014**
Production Prime	10.083	42.014
Chargeable Standby	**12.150**	**50.625**
Reconfiguration	0.333	1.389
Streamer Reconfig	0.333	1.389
Weather	11.817	49.236
DownTime	**1.767**	**7.361**
Cetacean	1.767	7.361
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**2.124**
Cetacean	12.233	2.124
Chargeable Standby	**175.983**	**30.553**
Cetacean	1.617	0.281
Reconfiguration	18.450	3.203
Streamer Reconfig	18.450	3.203
Transit	82.133	14.259
Weather	73.783	12.810
Mobilisation	**137.267**	**23.831**
Deployment	28.167	4.890
Mob Ashore	67.167	11.661
Transit to Prospect	41.933	7.280
Acquisition	**185.533**	**32.211**
Prime Line Change	8.933	1.551
Production Infill	4.700	0.816
Production Prime	171.900	29.844
Demobilisation	**64.983**	**11.282**
Recovery	64.983	11.282
Total	576.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m

MGL1803_SISIE_Gurnis_S. Island_NZ					
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

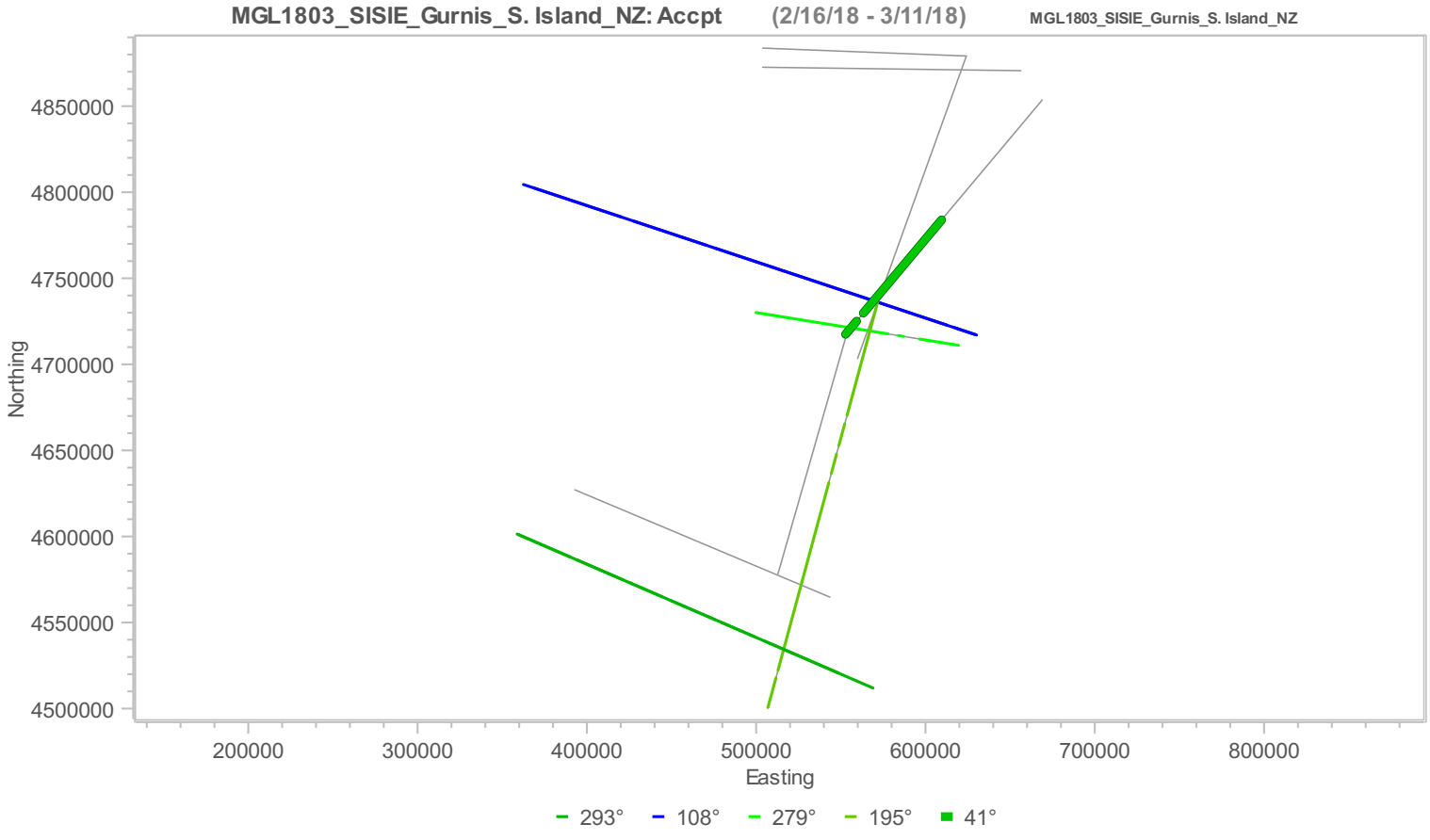
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
10	MCS17A	40.5	972	1172	Prime	10.00	5.311	Complete	Complete
11	MCS17A	40.5	1296	2719	Prime	71.15	4.237	Complete	Complete
Total						**81.15**			

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

Charged km	Day	Week	Month	Project
Prime	81.15	726.35	965.45	1438.40
Infill	0.00	0.45	0.45	0.45
Combined	**81.15**	**726.80**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 11 Mar

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
During recovery of the streamer there was 8 - DigiCourse 5011 Cable levelers (BIRDS) that were recovery damaged to due to the weather. There was also one BIRD lost at Sea (12720) and 2 - SRD's 22618 and 22669. A number of SRD's were also pulled off the collars. Most damaged BIRDS will be repaired on-board

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

General Purpose Science:
No Major Issues to Report

Daily Comment Summaries - Personnel Onboard

Sun 11 Mar

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Todd Jensvold L-DEO OMO Science Officer
Tom Spoto L-DEO OMO Chief Source Mechanic
Alan Thompson L-DEO OMO Marine Science Technician - Nav
Andrew Davey Contract Personnel Marine Science Technician (Source)
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Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sun 11 Mar

The vessel started the day en-route to the start of line MCS17a heeding to the NE.. At 00:20 UTC Line MGL1803MCS17a started and at 01:21 was aborted due to the PAM Streamer tangling with Sub-Array #4's Hose Bundle. At 03:07 UTC PAM was untangled and the vessel resumed production on Line MGL1803MCS17b, until the line was again aborted due to weather conditions at 12:11 UTC. Sub-Array's 1 & 2 were recovered and the vessel made its way towards Stewart Island for better sea condition to continue with the recovery of the towed Equipment. At 19:04 UTC the sea condition had improved and recovery continued, starting with Source Sub-Array's 3 and 4. These were on-board by 20:14 UTC. The streamer recovery began and by 22:23 UTC all towed equipment was on-board an the vessel was transiting to the location it would wait out the weather offshore.

Daily Comment Summaries - Plan for Tomorrow

Sun 11 Mar

The Vessel will start the day transiting to a shelter area near Stewart Island to standby for the weather offshore to improve. It is expected to remain her throughout the day.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Streamer Reconfig	SB_REC_SR	Sun 11. Mar 00:00	Sun 11. Mar 00:20	0.333
Maneuvering to start of line MGL1803MCS17a				
Production Prime	AC_PP	Sun 11. Mar 00:20	Sun 11. Mar 01:21	1.017
SOL Seq 10 Line:MGL1803MCS17A Preplot:MC17 FGSP=972 FCSP=972 Hdg=40.5° Prime EOL Seq 10 Line:MGL1803MCS17A Preplot:MC17 LGSP=1172 LCSP=1172 Complete				
Cetacean	DT_CT	Sun 11. Mar 01:21	Sun 11. Mar 03:07	1.767
PAM cable tangled in Sub-Array #4				
Production Prime	AC_PP	Sun 11. Mar 03:07	Sun 11. Mar 12:11	9.067
SOL Seq 11 Line:MGL1803MCS17A Preplot:MC17 FGSP=1296 FCSP=1296 Hdg=40.5° Prime EOL Seq 11 Line:MGL1803MCS17A Preplot:MC17 LGSP=2719 LCSP=2719 Complete				
Weather	SB_WX	Sun 11. Mar 12:11	Sun 11. Mar 19:04	6.883
Standing by for Weather. Streamer 2 and Sub-Arrays 3 and 4 still in the water. Waiting on deck conditions to improve before recovery begins.				
Weather	SB_WX	Sun 11. Mar 19:04	Sun 11. Mar 20:14	1.167
Recovering Sub-Array # 3 and 4.				
Weather	SB_WX	Sun 11. Mar 20:14	Sun 11. Mar 22:23	2.150
Recovering Streamer #2				
Weather	SB_WX	Sun 11. Mar 22:23	Sun 11. Mar 24:00	1.617

Category	Code	Start	End	Duration
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

11-Mar	Hours	%Percent
Acquisition	**10.083**	**42.014**
Production Prime	10.083	42.014
Chargeable Standby	**12.150**	**50.625**
Reconfiguration	0.333	1.389
Streamer Reconfig	0.333	1.389
Weather	11.817	49.236
DownTime	**1.767**	**7.361**
Cetacean	1.767	7.361
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**2.124**
Cetacean	12.233	2.124
Chargeable Standby	**175.983**	**30.553**
Cetacean	1.617	0.281
Reconfiguration	18.450	3.203
Streamer Reconfig	18.450	3.203
Transit	82.133	14.259
Weather	73.783	12.810
Mobilisation	**137.267**	**23.831**
Deployment	28.167	4.890
Mob Ashore	67.167	11.661
Transit to Prospect	41.933	7.280
Acquisition	**185.533**	**32.211**
Prime Line Change	8.933	1.551
Production Infill	4.700	0.816
Production Prime	171.900	29.844
Demobilisation	**64.983**	**11.282**
Recovery	64.983	11.282
Total	576.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ

General Details

Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		

MGL1803_SISIE_Gurnis_S. Island_NZ					
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

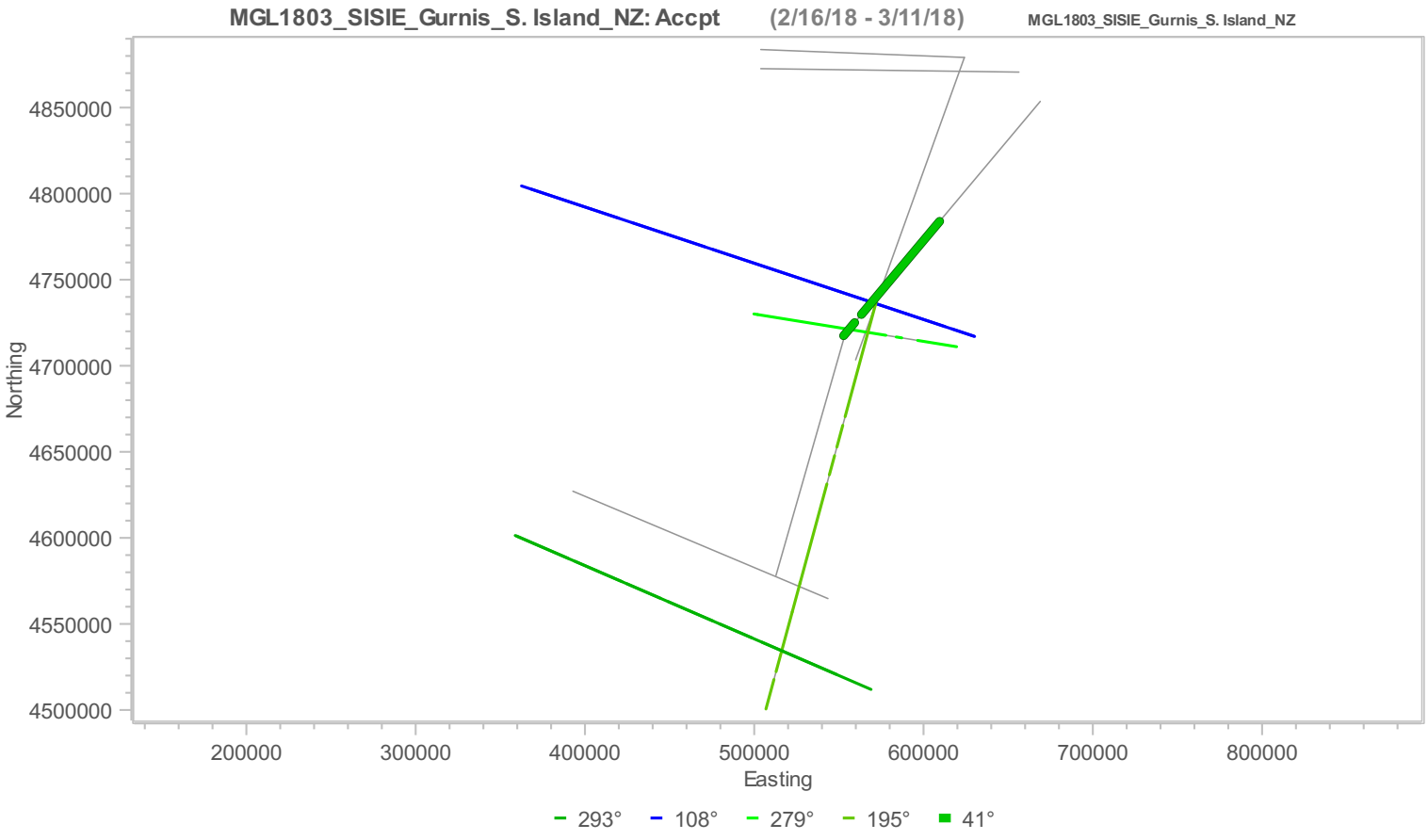
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
10	MCS17A	40.5	972	1172	Prime	10.00	5.311	Complete	Complete
11	MCS17A	40.5	1296	2719	Prime	71.15	4.237	Complete	Complete
Total						**81.15**			

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

Charged km	Day	Week	Month	Project
Prime	81.15	726.35	965.45	1438.40
Infill	0.00	0.45	0.45	0.45
Combined	**81.15**	**726.80**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 11 Mar

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:
In the rough weather the Maggie tow leader was damaged and will be replaced with a spare. PAM streamer was tangled with Sub-Array #4 no damage occured.

Daily Comment Summaries - Personnel Onboard

Sun 11 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
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Shuck, Brandon UT GRA 1, NSF supp.
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Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
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Daily Science Report

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Client:	United States National Science Foundation	**Contractor:**	Lamont-Doherty Earth Observatory
Job No:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Mon 12 Mar

The vessel spent the day behind Stewart Island standing by for weather offshore. Forecast in the mission area were W-WNW 25-40 KTS 6-10m seas.

Daily Comment Summaries - Plan for Tomorrow

Mon 12 Mar

The Vessel will start the day standing by Stewart Island for the weather and depending on the forecast might make its way back out to the mission area.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Weather	SB_WX	Mon 12. Mar 00:00	Mon 12. Mar 24:00	24.000
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

12-Mar	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, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**2.039**
Cetacean	12.233	2.039
Chargeable Standby	**199.983**	**33.331**
Cetacean	1.617	0.269
Reconfiguration	18.450	3.075
Streamer Reconfig	18.450	3.075
Transit	82.133	13.689
Weather	97.783	16.297
Mobilisation	**137.267**	**22.878**
Deployment	28.167	4.694
Mob Ashore	67.167	11.194
Transit to Prospect	41.933	6.989

Category	Hours	%Percent
Acquisition	**185.533**	**30.922**
Prime Line Change	8.933	1.489
Production Infill	4.700	0.783
Production Prime	171.900	28.650
Demobilisation	**64.983**	**10.831**
Recovery	64.983	10.831
Total	600.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

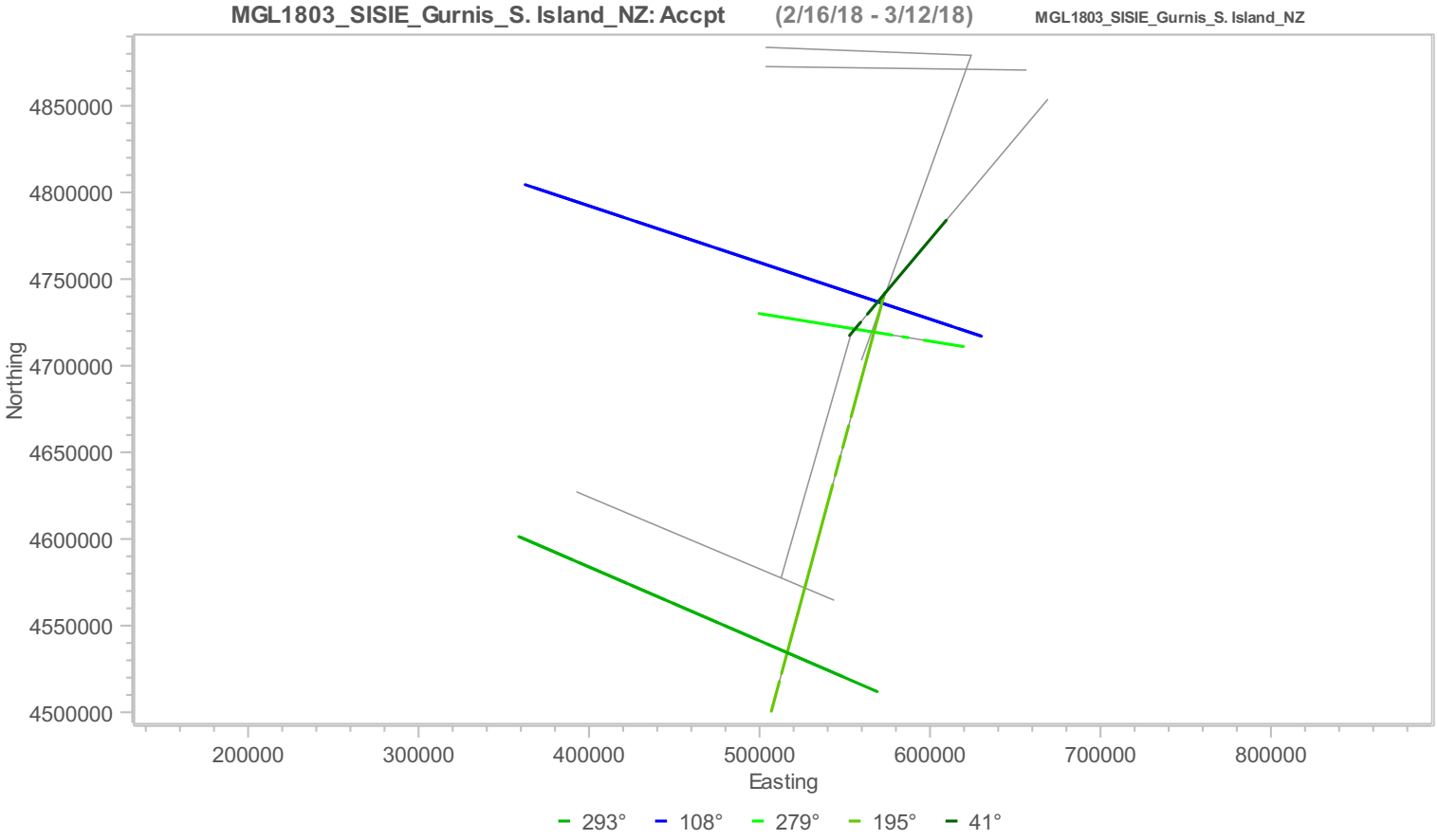
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	965.45	1438.40
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 12 Mar

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (OBS):
Dissembled/repaired Birds from the 3D and 12.6km streamer.

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

General Purpose Science:
Maggie Cable replaced and Maggie again operational.

Daily Comment Summaries - Personnel Onboard

Mon 12 Mar

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Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
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Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Tue 13 Mar

The vessel spent the day near Stewart Island standing by for weather offshore. Forecast in the mission area were W-WNW 25-40 KTS 4-9m seas and we continued to monitor weather

Focused today was on:
1. Preforming Maintenance on DigiCourse 5011 Birds - By end of day 60 of the vessel complement have been gone through in the previous 2 days.
2. Testing of all DigiCourse Source CTX's Acoustics
3. Testing of all PosNET Source and Tailbuoy rGPS Pods
4. Repair of Source GPS Mounts.
5. Testing of Maggie with new tow Cable
6. Preformed EM122 BIST (Passed)
7. Function test of Knudsen and ADCP (Passed)

Daily Comment Summaries - Plan for Tomorrow

Tue 13 Mar

The Vessel will spend the day standing by Stewart Island for the weather.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Weather	SB_WX	Tue 13. Mar 00:00	Tue 13. Mar 24:00	24.000
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

13-Mar	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, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.960**
Cetacean	12.233	1.960
Chargeable Standby	**223.983**	**35.895**
Cetacean	1.617	0.259
Reconfiguration	18.450	2.957
Streamer Reconfig	18.450	2.957

Category	Hours	%Percent
Transit	82.133	13.162
Weather	121.783	19.517
Mobilisation	**137.267**	**21.998**
Deployment	28.167	4.514
Mob Ashore	67.167	10.764
Transit to Prospect	41.933	6.720
Acquisition	**185.533**	**29.733**
Prime Line Change	8.933	1.432
Production Infill	4.700	0.753
Production Prime	171.900	27.548
Demobilisation	**64.983**	**10.414**
Recovery	64.983	10.414
Total	624.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

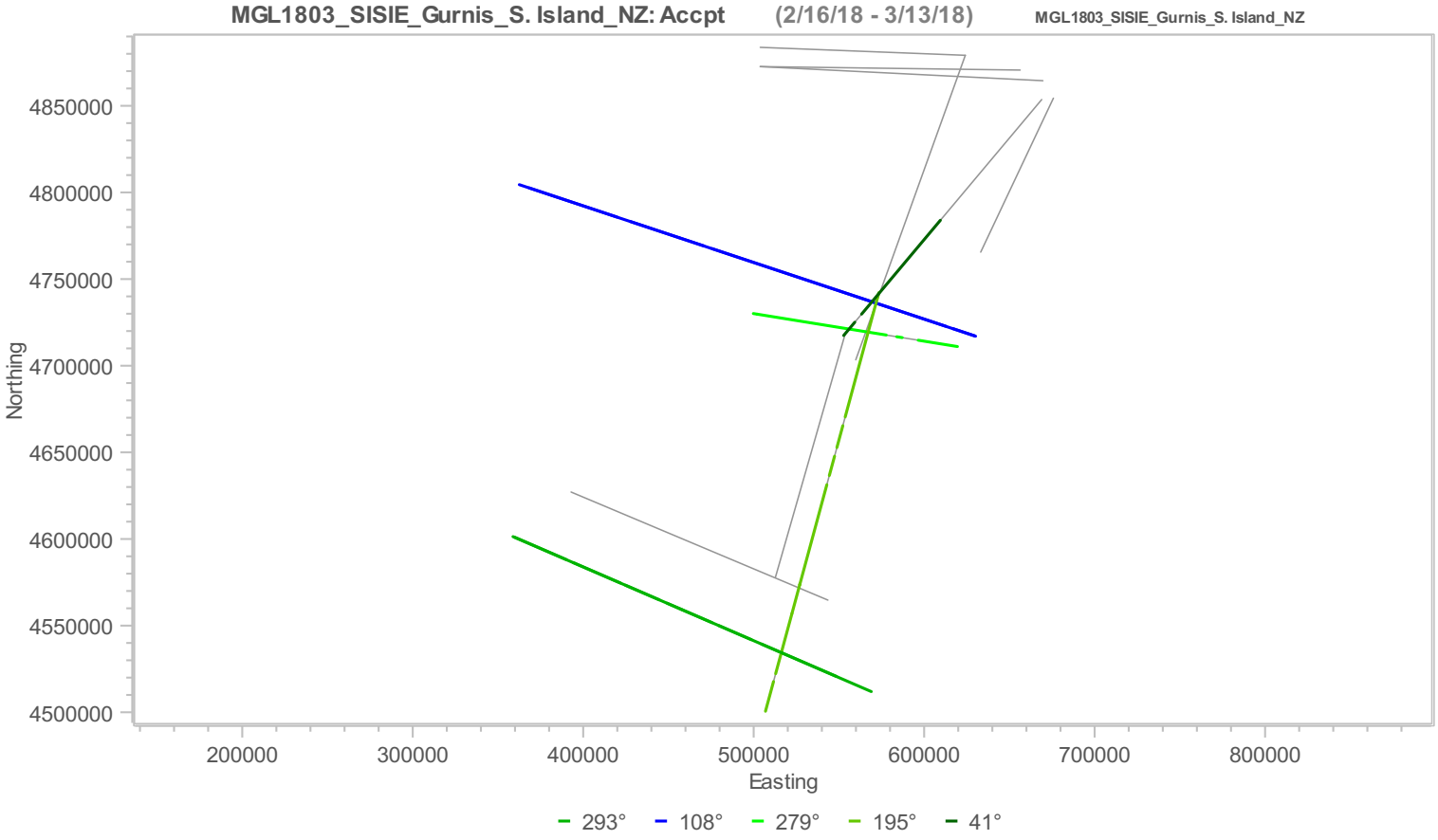
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	965.45	1438.40
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 13 Mar

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

Daily Comment Summaries - Personnel Onboard

Tue 13 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Wed 14 Mar

The vessel spent the day near Stewart Island standing by for weather offshore. We continued to monitor weather throughout the day. Todays forecast for the mission area is for winds out of the W-SW 30-40 KTS and the seas to be 6-11m.

Focused today was on:
1. Continued Maintenance on DigiCourse 5011 Birds - By end of day 87 of the vessel complement have been gone through.
2. Repaired Bird motor models.
3. Installed additional Lighting on forward end of Main Deck near source reels.
4. Trouble shooting of EM122 PU communication issues. - (Operational)
5. Preformed EM122 BIST (Passed)
6. Function test of Knudsen and ADCP (Passed)

Daily Comment Summaries - Plan for Tomorrow

Wed 14 Mar

The Vessel will spend the day standing by Stewart Island for the weather.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Weather	SB_WX	Wed 14. Mar 00:00	Wed 14. Mar 24:00	24.000
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

14-Mar	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, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.888**
Cetacean	12.233	1.888
Chargeable Standby	**247.983**	**38.269**
Cetacean	1.617	0.249
Reconfiguration	18.450	2.847
Streamer Reconfig	18.450	2.847

Category	Hours	%Percent
Transit	82.133	12.675
Weather	145.783	22.497
Mobilisation	**137.267**	**21.183**
Deployment	28.167	4.347
Mob Ashore	67.167	10.365
Transit to Prospect	41.933	6.471
Acquisition	**185.533**	**28.632**
Prime Line Change	8.933	1.379
Production Infill	4.700	0.725
Production Prime	171.900	26.528
Demobilisation	**64.983**	**10.028**
Recovery	64.983	10.028
Total	648.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

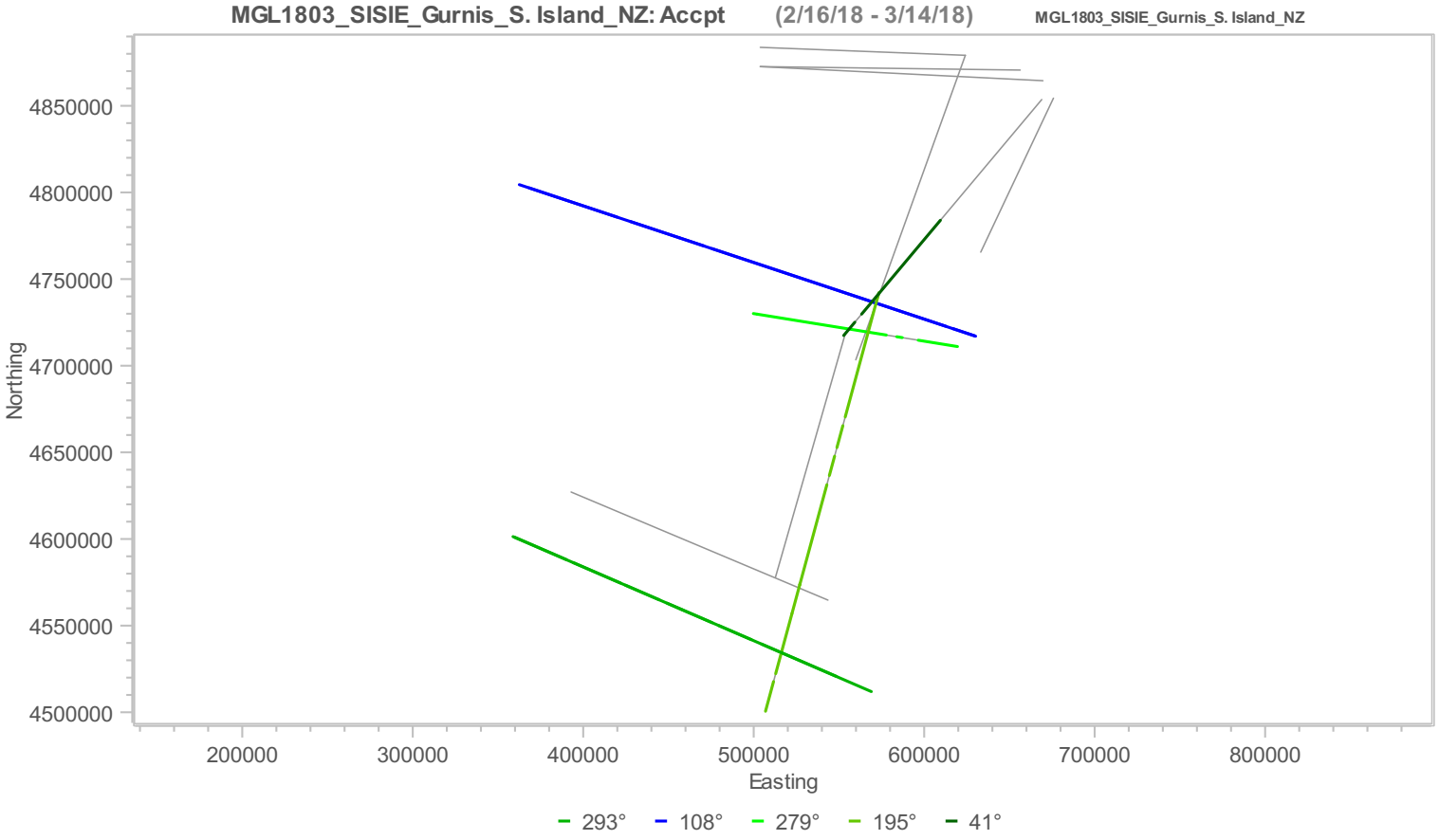
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	965.45	1438.40
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 14 Mar

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:
In the morning hours the PU stopped communicating with the workstation. After a hard (Power) reset of the PU communication was restored and BIST was preformed, which the EM122 Passed.

Daily Comment Summaries - Personnel Onboard

Wed 14 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Thu 15 Mar

The vessel spent the day near Stewart Island standing by for weather offshore. We continued to monitor weather throughout the day.

Focused today was on:
1. Completed Bird Maintenance
2. Completed Maintenance on spare Bird motor models.
3. Work on Source Dept Inventory
4. Work on Streamer Histories Inventory
5. Preformed EM122 BIST (Passed)
6. Function test of Knudsen and ADCP (Passed)

Daily Comment Summaries - Plan for Tomorrow

Thu 15 Mar

The Vessel start the day standing by Stewart Island for the weather. It is expected that at ~06:00 UTC that the vessel will get underway for the survey area and by ~20:00 UTC it is hoped that the weather has dropped enough to allow for the deployment of the towed equipment.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Weather	SB_WX	Thu 15. Mar 00:00	Thu 15. Mar 24:00	24.000
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

15-Mar	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, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.820**
Cetacean	12.233	1.820
Chargeable Standby	**271.983**	**40.474**
Cetacean	1.617	0.241
Reconfiguration	18.450	2.746
Streamer Reconfig	18.450	2.746

Category	Hours	%Percent
Transit	82.133	12.222
Weather	169.783	25.265
Mobilisation	**137.267**	**20.427**
Deployment	28.167	4.191
Mob Ashore	67.167	9.995
Transit to Prospect	41.933	6.240
Acquisition	**185.533**	**27.609**
Prime Line Change	8.933	1.329
Production Infill	4.700	0.699
Production Prime	171.900	25.580
Demobilisation	**64.983**	**9.670**
Recovery	64.983	9.670
Total	672.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

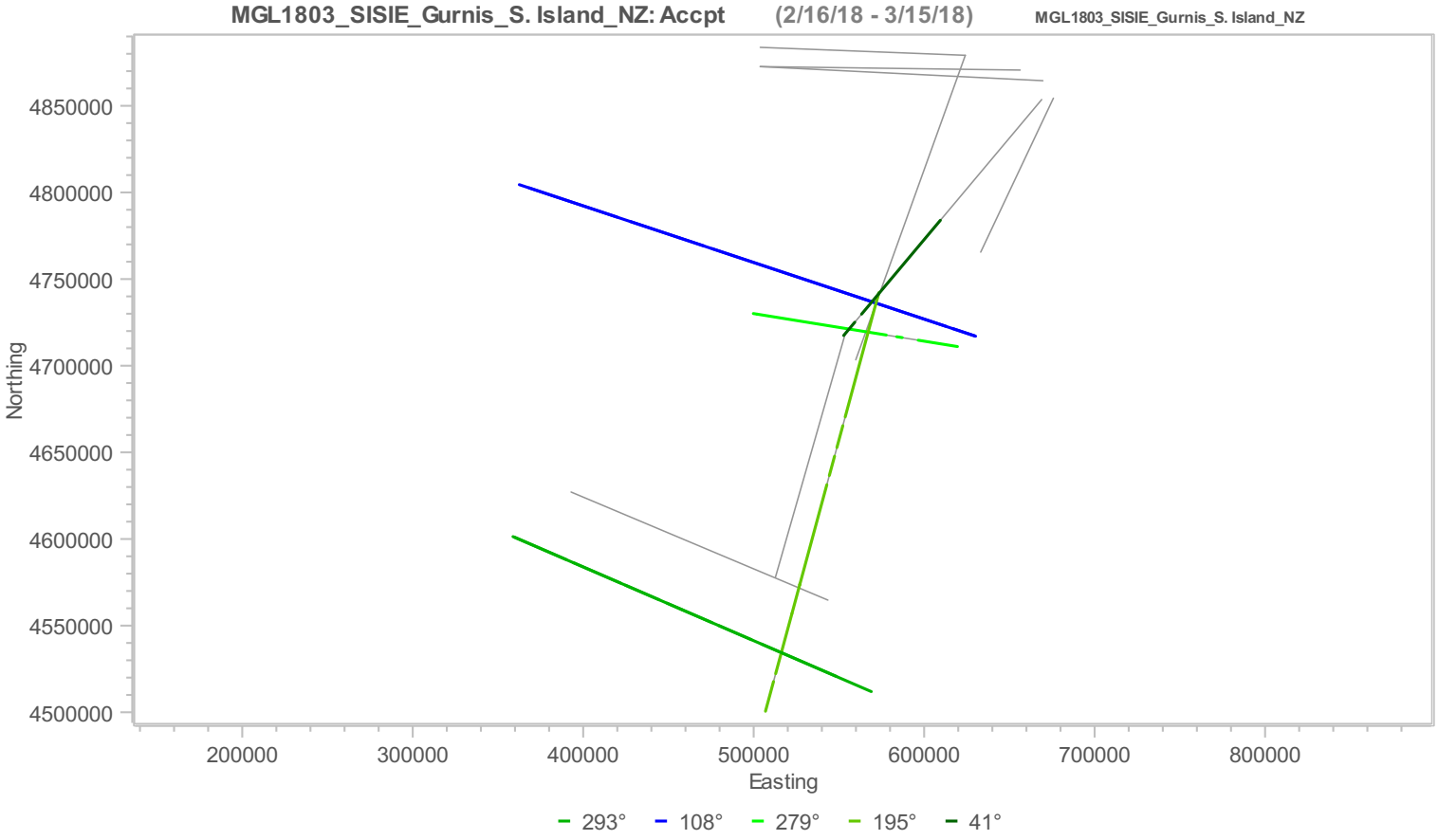
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	965.45	1438.40
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 15 Mar

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:
In the morning hours the PU stopped communicating with the workstation. After a hard (Power) reset of the PU communication was restored and BIST was preformed, which the EM122 Passed.

Daily Comment Summaries - Personnel Onboard

Thu 15 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Fri 16 Mar

The vessel started the day near Stewart Island standing by for weather offshore. At 06:00 UTC the vessel go underway for the survey area. At 17:52 UTC arrived at the Streamer Deployment location. Streamer was fully deployed at 20:51 UTC.and source deployment commenced and was completed at 23:09. The vessel then maneuvered to towards line MGL1803MCS17a throughout the remainder of the day.

Daily Comment Summaries - Plan for Tomorrow

Fri 16 Mar

The Vessel started maneuvering towards MGL1803MCS17c and is expected to begin production at 02:12 UTC. The line is expected to continue to ~12:22 UTC, as which time the vessel will make a line change to Line MGL1803T03. This line is expected to take ~2 hours and afterwards will make another line change to Line MGL1803MCS21a. This line will continue throughout the remainder of the days.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Weather	SB_WX	Fri 16. Mar 00:00	Fri 16. Mar 06:00	6.000
All gear on-board and vessel is standing by for weather on the leeward side of Stewart Island.				
Weather	SB_WX	Fri 16. Mar 06:00	Fri 16. Mar 17:52	11.867
Transiting back to Survey Area				
Weather	SB_WX	Fri 16. Mar 17:52	Fri 16. Mar 20:51	2.983
Deployment of Streamer after weather standby				
Weather	SB_WX	Fri 16. Mar 20:51	Fri 16. Mar 23:09	2.300
Deployment of Source after weather standby				
Weather	SB_WX	Fri 16. Mar 23:09	Fri 16. Mar 24:00	0.850
Maneuvering of vessel to line MGL1803MCS17a				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

16-Mar	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, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.758**
Cetacean	12.233	1.758
Chargeable Standby	**295.983**	**42.526**
Cetacean	1.617	0.232
Reconfiguration	18.450	2.651
Streamer Reconfig	18.450	2.651
Transit	82.133	11.801
Weather	193.783	27.842
Mobilisation	**137.267**	**19.722**
Deployment	28.167	4.047
Mob Ashore	67.167	9.650
Transit to Prospect	41.933	6.025
Acquisition	**185.533**	**26.657**
Prime Line Change	8.933	1.284
Production Infill	4.700	0.675
Production Prime	171.900	24.698
Demobilisation	**64.983**	**9.337**
Recovery	64.983	9.337
Total	696.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

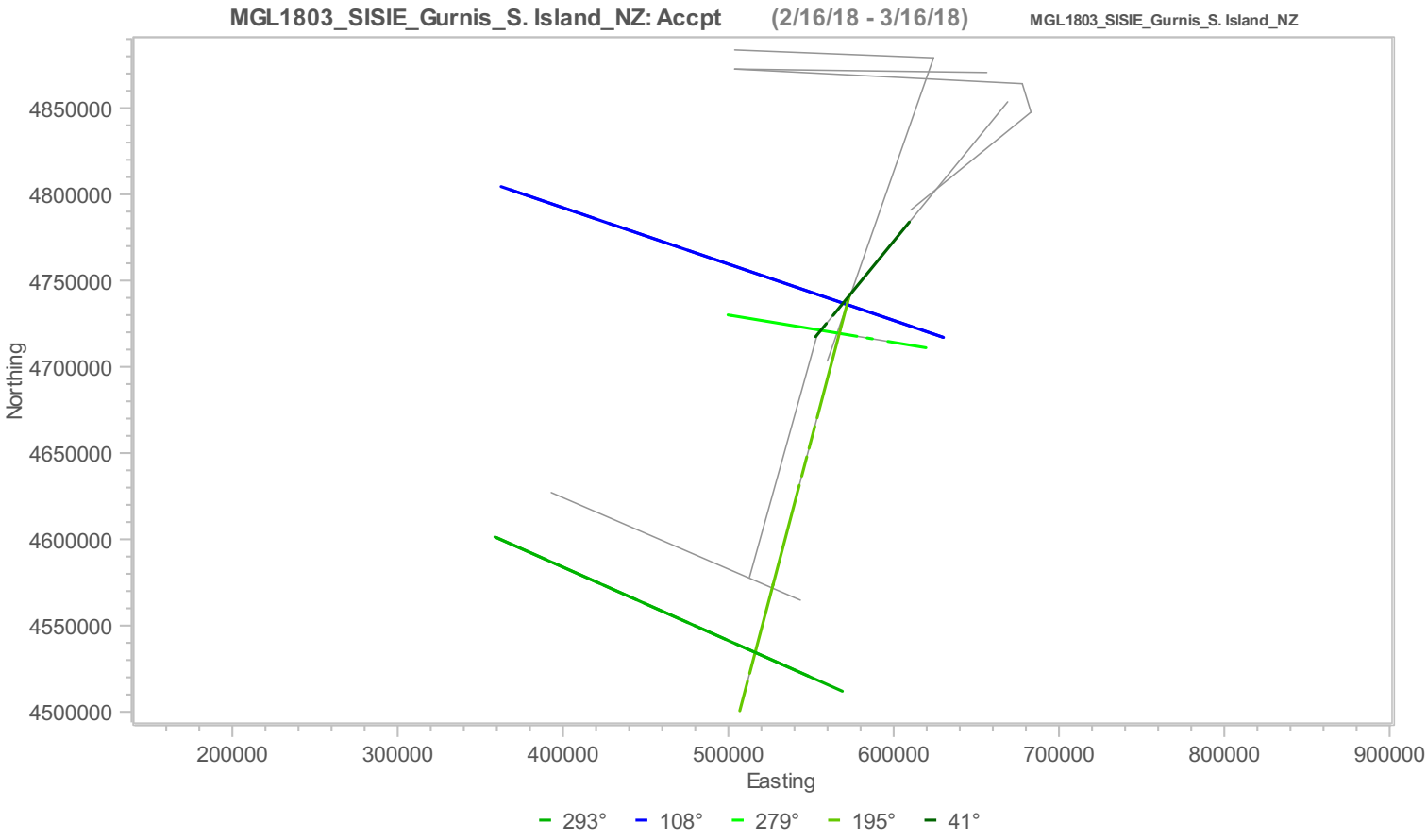
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	965.45	1438.40
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**965.90**	**1438.85**



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 16 Mar

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:
The Gravimeter is operational and data is being logged, but during the rough weather the WHOI monitoring computer was damaged and it would see has a hard drive failure.

Daily Comment Summaries - Personnel Onboard

Fri 16 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

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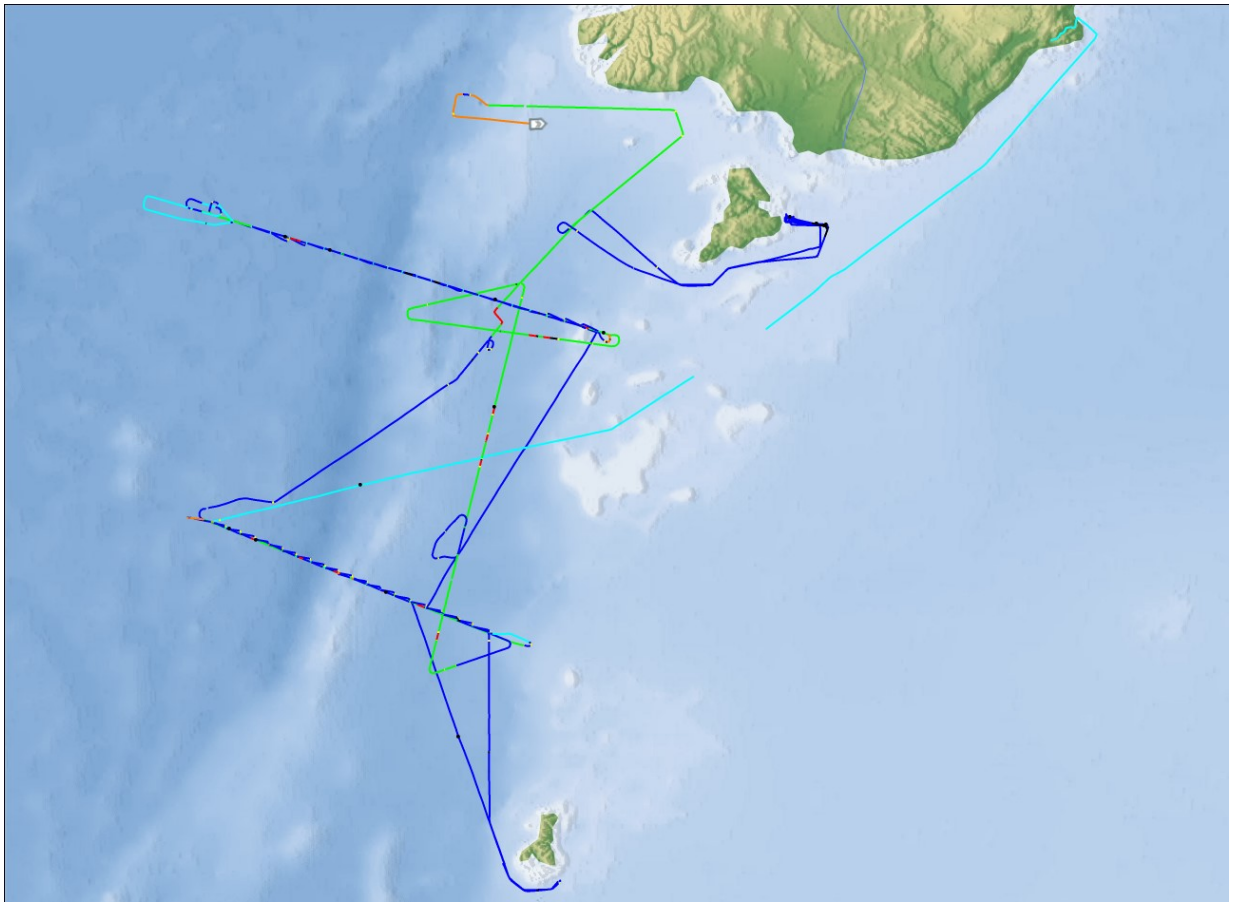
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Sun 18 Mar

The vessel started the day continuing on Line MGL1803MCS19a. At 03:00 UTC the line was ended due to incoming weather and for completion of the survey. The vessel began recovering the tow equipment and by 07:51 UTC all towed equipment was on-board and the vessel was in transit to Dunedin, NZ to begin demobilization of MGL1803. The vessel continued in transit throughout the remainder of the day.

During the recovery the PAM tow leader was damaged and will need to be sent in for repair.

Item focused on during transit.
1. De-Rigging of Maggie and storing of the tow-fish.
2. De-commissioning/Cleaning of the Birds and Pods for storage.
3. Freshwater wash down of Source Elements and Oiling for storage.
4. Raising of Source Positions 1, 2, 6 and 7 on trolley's to all for easier access and more head room to walk ways.
5. Decking of Streamer #2's Tail Stretch and Stic Cable for future transfer of Streamer.
6. Storage of XBT flumes
7. Storage and Securing of all over the side towing lines.
8. Cleaning and Securing of Streamer Deck, Main Deck, and Lab Spaces for arrival in Port.
9. Preparation of Data Copies for Science Party and R2R.

Daily Comment Summaries - Plan for Tomorrow

Sun 18 Mar

The Vessel will start the day continuing the transit to Dunedin, NZ. At ~00:45 UTC the vessel will slow down for a short time to transfer ~2,500m of Streamer from Reel #4 back to Reel #2. This will all for all streamer to be in its original location from the start of the cruise and nothing but the leased section will remain on Streamer Reel #4. It is expected that the transfer will be completed by ~02:00 UTC. and the vessel will continue transit to Dunedin. It is expected to arrive at the pilots station at ~19:00 UTC and be secured along side by ~21:00 UTC to begin shore side demobilization from MGL1803.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Production Prime	AC_PP	Sun 18. Mar 00:00	Sun 18. Mar 03:00	3.000
SOL Seq 14 Line:MGL1803MCS19a FGSP=3000 FCSP=3000 Hdg=272.8° Prime EOL Seq 14 Line:MGL1803MCS19a LGSP=3471 LCSP=3471 Complete				
Recovery	DM_RC	Sun 18. Mar 03:00	Sun 18. Mar 04:46	1.767
Recovering of Source, PAM, and Maggie				
Transit	SB_TRT	Sun 18. Mar 04:46	Sun 18. Mar 05:20	0.567
Maneuvering Far Seas to recover Streamer				
Recovery	DM_RC	Sun 18. Mar 05:20	Sun 18. Mar 07:51	2.517

Category	Code	Start	End	Duration
Recovery of the Streamer				
Transit From Prospect	DM_TF	Sun 18. Mar 07:51	Sun 18. Mar 24:00	16.150
Demobilising, In Transit from prospect for demobilisation ashore.				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

18-Mar	Hours	%Percent
Acquisition	**3.000**	**12.500**
Production Prime	3.000	12.500
Chargeable Standby	**0.567**	**2.361**
Transit	0.567	2.361
Demobilisation	**20.433**	**85.139**
Recovery	4.283	17.847
Transit From Prospect	16.150	67.292
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.644**
Cetacean	12.233	1.644
Chargeable Standby	**298.750**	**40.155**
Cetacean	1.617	0.217
Reconfiguration	18.450	2.480
Streamer Reconfig	18.450	2.480
Transit	82.700	11.116
Weather	195.983	26.342
Mobilisation	**137.267**	**18.450**
Deployment	28.167	3.786
Mob Ashore	67.167	9.028
Transit to Prospect	41.933	5.636
Acquisition	**210.333**	**28.271**
Prime Line Change	9.133	1.228
Production Infill	4.700	0.632
Production Prime	196.500	26.411
Demobilisation	**85.417**	**11.481**
Recovery	69.267	9.310
Transit From Prospect	16.150	2.171
Total	744.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

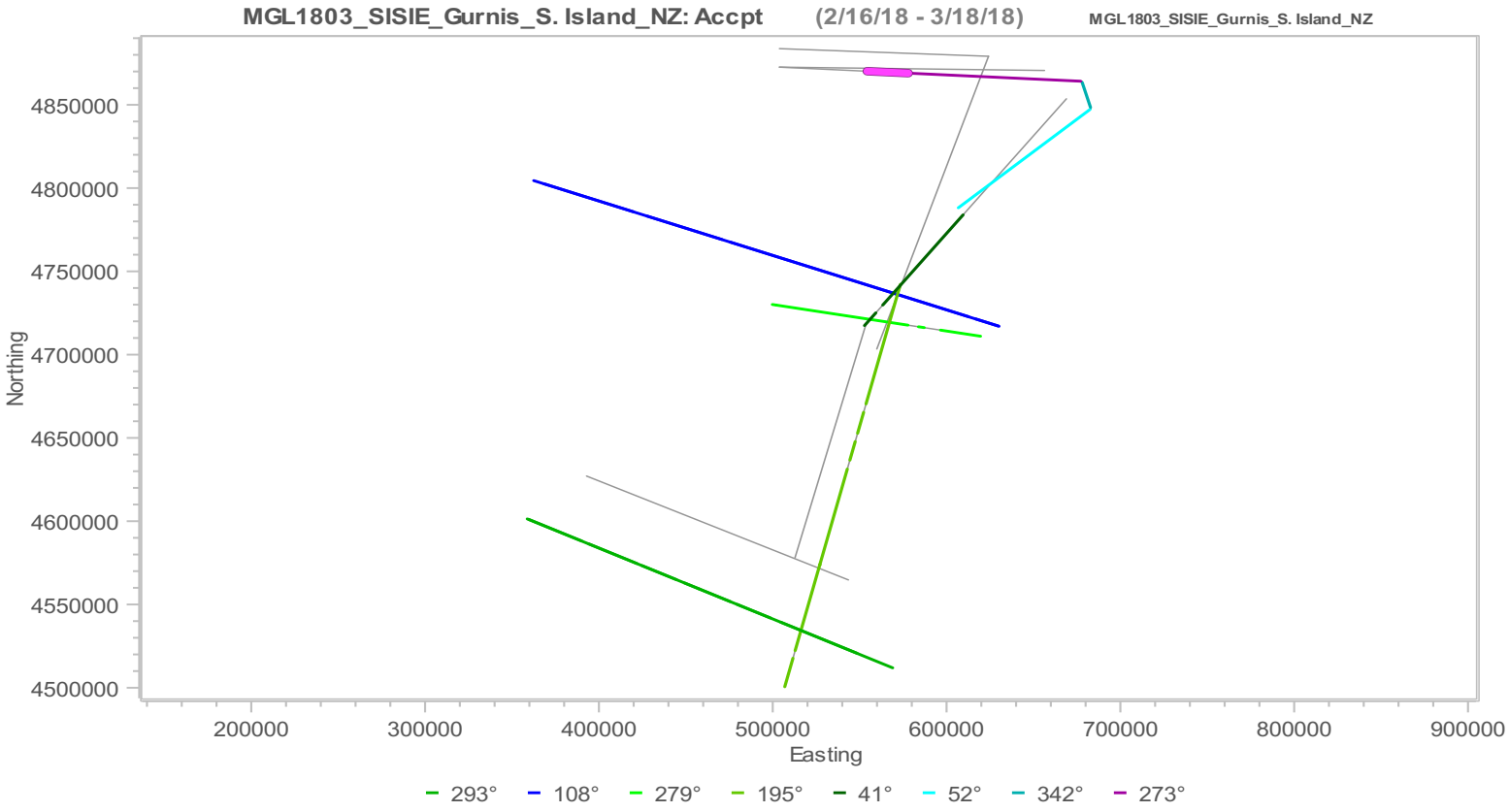
Production Listing (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803)

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
14	MCS19a	272.8	3000	3471	Prime	23.60	4.248	Complete	Complete
Total						**23.60**			

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

Charged km	Day	Week	Month	Project
Prime	23.60	234.60	1200.05	1673.00
Infill	0.00	0.00	0.45	0.45
Combined	**23.60**	**234.60**	**1200.50**	**1673.45**



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 18 Mar

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:
PAM Tow Leader was damaged during recovery and will need to be replaced. Damage report has been submitted by PSO's concerning the cause of the damage.

Daily Comment Summaries - Personnel Onboard

Sun 18 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
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Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
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Amanda Dubuque RPS Lead PSO
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Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
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Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Mon 19 Mar

The vessel started the day continuing the Transit to Dunedin, NZ. From 00:45 UTC to 01:32 UTC the vessel slowed down to transfer ~2500m of Streamer from Streamer Reel #4 to Streamer Rell #2. At 17:48 UTC the vessel arrived at the pilots station and by 20:20 UTC was secured alongside the Victoria T&U berth in Dunedin, NZ being the shore side demobilization from MGL1803.

Item focused on during transit.
1. De-Rigging of Lab Spaces and Cleaning
2. Continued Oiling and Maintenance of Source Elements.
3. Securing of Sonar head unit for Diving Operations (Cleaning of Hull)
4. Continued working Data Backup and Data Shipment copies.
5. De-Rigged PSO Tower and packaged up Big Eyes for Storage
6. Removing Damaged PAM streamer from Winch for shipment back in Hawaii.
7. PSO continuing to work on Final Survey Report

Daily Comment Summaries - Plan for Tomorrow

Mon 19 Mar

The Vessel will start the day continuing demobilization efforts alongside the Victoria T&U berth in Dunedin, NZ.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Transit From Prospect	DM_TF	Mon 19. Mar 00:00	Mon 19. Mar 00:45	0.750
Demobilising, In Transit from prospect for demobilisation ashore.				
Streamer Reconfig	SB_REC_SR	Mon 19. Mar 00:45	Mon 19. Mar 01:32	0.783
Slowed vessel down to transfer streamer back to Streamer Reel #2 from Streamer Reel #4.				
Transit From Prospect	DM_TF	Mon 19. Mar 01:32	Mon 19. Mar 20:10	18.633
Demobilising, In Transit from prospect for demobilisation ashore.				
Demob Ashore	DM_DA	Mon 19. Mar 20:10	Mon 19. Mar 24:00	3.833
Alongside Victoria T&U Pier Dunedin, NZ De				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

19-Mar	Hours	%Percent
Chargeable Standby	**0.783**	**3.264**
Reconfiguration	0.783	3.264
Streamer Reconfig	0.783	3.264
Demobilisation	**23.217**	**96.736**
Demob Ashore	3.833	15.972
Transit From Prospect	19.383	80.764
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.593**
Cetacean	12.233	1.593
Chargeable Standby	**299.533**	**39.002**
Cetacean	1.617	0.211
Reconfiguration	19.233	2.504
Streamer Reconfig	19.233	2.504
Transit	82.700	10.768
Weather	195.983	25.519
Demobilisation	**108.633**	**14.145**
Demob Ashore	3.833	0.499
Recovery	69.267	9.019
Transit From Prospect	35.533	4.627
Mobilisation	**137.267**	**17.873**
Deployment	28.167	3.668
Mob Ashore	67.167	8.746
Transit to Prospect	41.933	5.460
Acquisition	**210.333**	**27.387**
Prime Line Change	9.133	1.189
Production Infill	4.700	0.612
Production Prime	196.500	25.586
Total	768.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m

MGL1803_SISIE_Gurnis_S. Island_NZ					
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

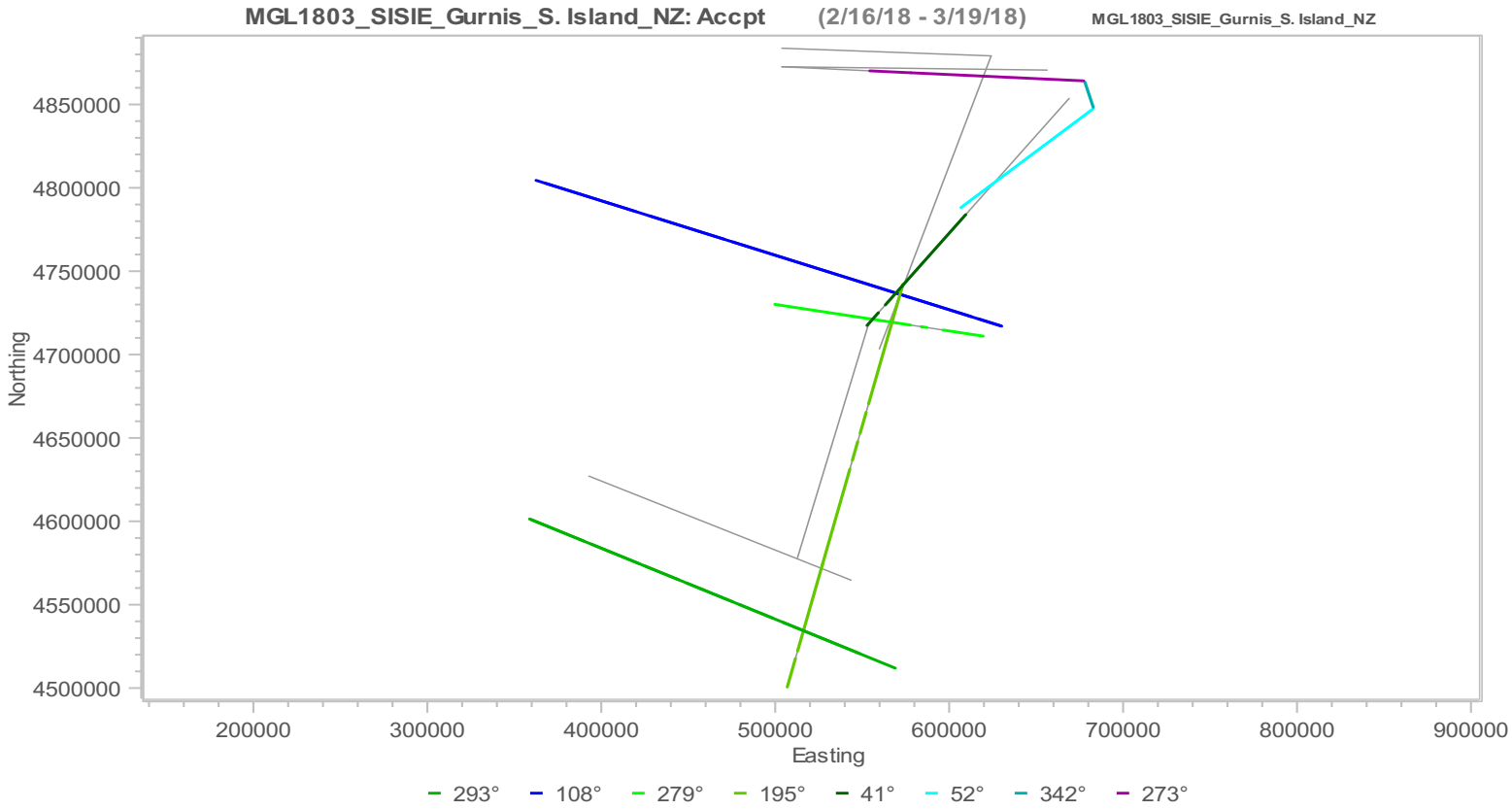
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	1200.05	1673.00
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**1200.50**	**1673.45**



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 19 Mar

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:
PAM Tow Leader was damaged during recovery and will need to be replaced. Damage report has been submitted by PSO's concerning the cause of the damage.

Daily Comment Summaries - Personnel Onboard

Mon 19 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief Science Officer
Todd Jensvold L-DEO OMO Science Officer
Tom Spoto L-DEO OMO Chief Source Mechanic
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Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Tue 20 Mar

The vessel spent the day secured alongside the Victoria T&U berth in Dunedin, NZ being the shore side demobilization from MGL1803. During the Day we experienced a loss of clean power due to MG Set #2 failure. Engine Room is investigating cause and will provide a report to follow. Main Lab is currently operating on MG Set #1. Science Officer David Martinson and Marine Technician Josh Kasinger joined the vessel today.

Item focused on during transit.
1. Continued De-Rigging of Lab Spaces and Cleaning
2. Preformed three tours of the vessel (~45 people) from the Otago University.
3. Sonar heads remain secured for Diving Operations (Cleaning of Hull)
4. Continued working Data Backup and Data Shipment copies.
5. Offloaded UTIG OBS equipment
6. Completed Post Cruise Gravity Tie
7. PSO continuing to work on Final Survey Report

Daily Comment Summaries - Plan for Tomorrow

Tue 20 Mar

The Vessel will spend the day continuing demobilization efforts alongside the Victoria T&U berth in Dunedin, NZ.

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Demob Ashore	DM_DA	Tue 20. Mar 00:00	Tue 20. Mar 24:00	24.000
Alongside Victoria T&U Pier Dunedin, NZ De				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

20-Mar	Hours	%Percent
Demobilisation	**24.000**	**100.000**
Demob Ashore	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.545**
Cetacean	12.233	1.545
Chargeable Standby	**299.533**	**37.820**

Category	Hours	%Percent
Cetacean	1.617	0.204
Reconfiguration	19.233	2.428
Streamer Reconfig	19.233	2.428
Transit	82.700	10.442
Weather	195.983	24.745
Demobilisation	**132.633**	**16.747**
Demob Ashore	27.833	3.514
Recovery	69.267	8.746
Transit From Prospect	35.533	4.487
Mobilisation	**137.267**	**17.332**
Deployment	28.167	3.556
Mob Ashore	67.167	8.481
Transit to Prospect	41.933	5.295
Acquisition	**210.333**	**26.557**
Prime Line Change	9.133	1.153
Production Infill	4.700	0.593
Production Prime	196.500	24.811
Total	792.000	

Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 20 Mar

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

Daily Comment Summaries - Personnel Onboard

Tue 20 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator
Aletta Bussenschutt RPS PSO

Science Party On-board the Langseth
Gurnis, Mike Caltech PI
Stock, Joann Caltech Co-PI
Van Avendonk, Harm UT Co-PI
Gulick, Sean UT Co-PI
Sutherland, Rupert Victoria U Scientist
Saustrup, Steffen UT OBS Tech. 1
Duncan, Dan UT OBS Tech. 2
Davis, Marcy UT OBS Tech. 3
Hightower, Erin Caltech GRA 1, NSF supp.
Williams, Ethan Caltech GRA 2, NSF supp.
Shuck, Brandon UT GRA 1, NSF supp.
Kardell, Dominic UT GRA 2, NSF supp.
Patel, Jiten Victoria U MSc student
Herzig, Erich Caltech Ge211 BS student
Idini, Benjamin Caltech Ge211 PhD student
Graham, Kenny Victoria U PhD student
Estep, Justin TAMU PhD student
Carrington, Luke Otago MSc 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:	MGL1803	**Job No:**	MGL1803
Block:	MGL1803_SISIE_Gurnis_S. Island_NZ	**Vessel:**	Marcus G Langseth
Client Contact:	Mike Gurnis	**Supervisor:**	Sean Higgins
Consultancy:	N/A	**Party Chiefs:**	Robert J Steinhaus/Todd Jensvold
Job No:	N/A	**Client Reps:**	N/A

Daily Comment Summaries - Daily Summary

Wed 21 Mar

The vessel spent the day secured alongside the Victoria T&U berth in Dunedin, NZ being the shore side demobilization from MGL1803. This will be the last Daily Science Report for MGL1803.

Item focused on during transit.
1. Continued Cleaning and securing lab spaces
2. Preformed one tour for Ortago Daily Times News Paper
3. Sonar heads remain secured for Diving Operations (Cleaning of Hull)
4. PSO continuing to work on Final Survey Report
5. Cleaning and Storage of Source Solenoid Blocks.
6. Continued turnover with On-signing Tech's

Daily Comment Summaries - Plan for Tomorrow

Wed 21 Mar

The Vessel will start the day alongside the Victoria T&U berth in Dunedin, NZ. making efforts to get underway for Honolulu, HI. It is planned for the vessel to depart at ~19:00 UTC to being the transit.
The following Tech's and PSO will be departing the vessel before the vessel leaves.

Robert Steinhaus L-DEO OMO Chief 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
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator

Timing Diary (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Code	Start	End	Duration
Demob Ashore	DM_DA	Wed 21. Mar 00:00	Wed 21. Mar 24:00	24.000
Alongside Victoria T&U Pier Dunedin, NZ De				

Timing Day By Day (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

21-Mar	Hours	%Percent
Demobilisation	**24.000**	**100.000**
Demob Ashore	24.000	100.000
Day's Total	**24.000**	**100.000**

Timing Breakdown Summary - Project (Marcus G Langseth, MGL1803_SISIE_Gurnis_S. Island_NZ)

Category	Hours	%Percent
DownTime	**12.233**	**1.499**
Cetacean	12.233	1.499
Chargeable Standby	**299.533**	**36.708**
Cetacean	1.617	0.198
Reconfiguration	19.233	2.357
Streamer Reconfig	19.233	2.357
Transit	82.700	10.135
Weather	195.983	24.018
Demobilisation	**156.633**	**19.195**
Demob Ashore	51.833	6.352
Recovery	69.267	8.489
Transit From Prospect	35.533	4.355

Category	Hours	%Percent
Mobilisation	**137.267**	**16.822**
Deployment	28.167	3.452
Mob Ashore	67.167	8.231
Transit to Prospect	41.933	5.139
Acquisition	**210.333**	**25.776**
Prime Line Change	9.133	1.119
Production Infill	4.700	0.576
Production Prime	196.500	24.081
Total	816.000	

Basic Project Details

MGL1803_SISIE_Gurnis_S. Island_NZ					
General Details					
Record length:	16000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	175 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Head Separation:	0 m	Tail Separation:	0 m
Chans Per Cable:	1008	Front Depth:	10 m	Tail Depth:	10 m
Length:	12600 m	Group interval:	12.5 m		
Source Details					
No of Sources:	1	Separation:	0 m	Total Volume:	6600 cu ins
Depth:	9 m	Pressure:	1950 PSI	Volume:	6600
Strings per source:	4	String Separation:	6 m - 6 m - 6 m	String length:	18 m
Binning					
Size Inline:	50 m	Size XLine:	0 m		

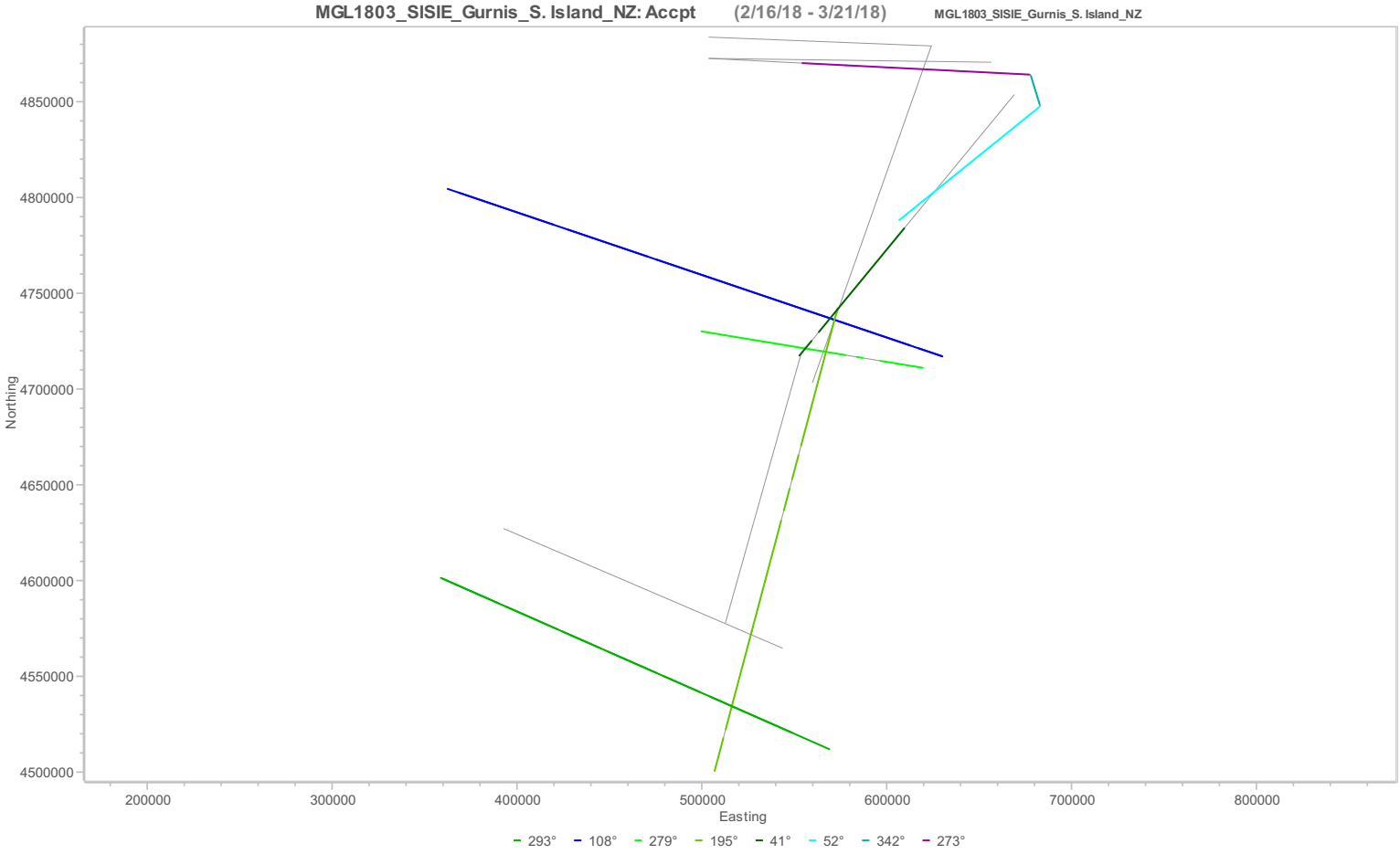
Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

MGL1803_SISIE_Gurnis_S. Island_NZ (MGL1803) (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	1200.05	1673.00
Infill	0.00	0.00	0.45	0.45
Combined	**0.00**	**0.00**	**1200.50**	**1673.45**



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 21 Mar

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

Daily Comment Summaries - Personnel Onboard

Wed 21 Mar

Technical Staff On-board the Langseth
Robert Steinhaus L-DEO OMO Chief Science Officer
David Martinson - LDEO 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
Josh Kasinger - L-DEO OMO Marine Science Technician - Source
Andrew Davey Contract Personnel Marine Science Technician (Source)
Dean Addison Contract Personnel Marine Science Technician (Source)
Grahan Gooddard Contract Personnel Marine Science Technician (Source/Compressor)
Clive Dugdale Contract Personnel Marine Science Technician (Observer)

PSO Staff On-board the Langseth
Amanda Dubuque RPS Lead PSO
Sara Davis RPS PAM operator / PSO
Brooke Stanford RPS PSO / PAM operator
Gaul Begbie RPS PSO / PAM operator

Science Party On-board the Langseth
None On-Board