

# Daily Science Report

4/17/2019

Page 1, Revision 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 17 Apr


Day was spent dockside: Loaded WHOI OBS van, PSO personnel arrived, continue building and testing source arrays  
Plan to move late (local day) to begin taking fuel.

## Daily Comment Summaries - Plan for Tomorrow

Wed 17 Apr

Planned to spend morning taking on fuel.  
After returning from fuel barge, load on science personnel, continue testing equipment.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Mob Ashore	MB_MA	Wed 17. Apr 00:00	Wed 17. Apr 24:00	24.000
Mobilizing Ashore.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

17-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Total</b>	<b>24.000</b>	

## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 17 Apr

**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):**  
Troubleshooting of issues powering rGPS pods on source arrays 2 and 3

# Daily Science Report

4/17/2019

Page 2, Revision 1

## General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Wed 17 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Steve Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/18/2019

Page 1, Revision 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 18 Apr


Vessel began the day refueling, once completed moved back to U-H dock. Science party moved onboard. Performed orientation and safety briefing for all personnel.

## Daily Comment Summaries - Plan for Tomorrow

Thu 18 Apr

Continue mobilizing equipment dockside and wait for container to be delivered.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Code	Start	End	Duration
 Mob Ashore	MB_MA	Thu 18. Apr 00:00	Thu 18. Apr 24:00	24.000
Mobilizing Ashore.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

18-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>48.000</b>	<b>100.000</b>
Mob Ashore	48.000	100.000
<b>Total</b>	<b>48.000</b>	

## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 18 Apr

### 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):

Unable to resolve issue with rGPS on source bundle 3 d/t failure in bundle

### General Purpose Science:

# Daily Science Report

4/18/2019

Page 2, Revision 1

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Thu 18 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Steve Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/19/2019

Page 1, Revision 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 19 Apr


Standing by waiting for final container of equipment to arrive.  
Continue rigging source arrays, testing seismic equipment, rigging for sea.

## Daily Comment Summaries - Plan for Tomorrow

Fri 19 Apr

Continue standing by for final container to arrive.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Code	Start	End	Duration
 Mob Ashore	MB_MA	Fri 19. Apr 00:00	Fri 19. Apr 24:00	24.000
Mobilizing Ashore.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empor)

19-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>72.000</b>	<b>100.000</b>
Mob Ashore	72.000	100.000
<b>Total</b>	<b>72.000</b>	

## Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 19 Apr

**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):**  
Unable to resolve issue with rGPS on source bundle 3 d/t failure in bundle

**General Purpose Science:**

# Daily Science Report

4/19/2019

Page 2, Revision 1

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Fri 19 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Steve Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/20/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 20 Apr


Standing by waiting for final container of equipment to arrive.  
Continue rigging source arrays, testing seismic equipment, rigging for sea.

## Daily Comment Summaries - Plan for Tomorrow

Sat 20 Apr

Continue standing by for final container to arrive.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Mob Ashore	MB_MA	Sat 20. Apr 00:00	Sat 20. Apr 24:00	24.000
Mobilizing Ashore.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

20-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>96.000</b>	<b>100.000</b>
Mob Ashore	96.000	100.000
<b>Total</b>	<b>96.000</b>	

## Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 20 Apr

### 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):

Unable to resolve issue with rGPS on source bundle 3 d/t failure in bundle

### General Purpose Science:

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sun Apr 21 2019 03:07p.m.

Page 1

# Daily Science Report

4/20/2019

Page 2

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Sat 20 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Steve Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech



# Daily Science Report

4/21/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 21 Apr


Standing by waiting for final container of equipment to arrive.  
Continue rigging source arrays, testing seismic equipment, rigging for sea.

## Daily Comment Summaries - Plan for Tomorrow

Sun 21 Apr

Continue standing by for final container to arrive.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Mob Ashore	MB_MA	Sun 21. Apr 00:00	Sun 21. Apr 24:00	24.000
Mobilizing Ashore.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

21-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>120.000</b>	<b>100.000</b>
Mob Ashore	120.000	100.000
<b>Total</b>	<b>120.000</b>	

## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 21 Apr

**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):**  
Unable to resolve issue with rGPS on source bundle 3 d/t failure in bundle

**General Purpose Science:**

# Daily Science Report

4/21/2019

Page 2

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Sun 21 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Steve Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/22/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 22 Apr


Final container arrived ~10AM local time. Crew immediately began emptying container dockside and craning equipment over to main deck. All gear secured for sea and ready for departure.

## Daily Comment Summaries - Plan for Tomorrow

Mon 22 Apr

Depart Honolulu and begin transit to prospect area.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Code	Start	End	Duration
 Mob Ashore	MB_MA	Mon 22. Apr 00:00	Mon 22. Apr 24:00	24.000
Mobilizing Ashore.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

22-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>144.000</b>	<b>100.000</b>
Mob Ashore	144.000	100.000
<b>Total</b>	<b>144.000</b>	

## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 22 Apr

**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:**

# Daily Science Report

4/22/2019

Page 2

Uncontaminated sea water pumps require clean out and rebuild before can be made operational.

## Daily Comment Summaries - Personnel Onboard

Mon 22 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Steve Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/23/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Tue 23 Apr

Vessel departed the dock ~14:04 local time, 00:04 UTC  
Pilot was away at 14:42 local time, 00:42 UTC

Tested satellite capability for video conferencing.

Repaired uncontaminated sea water pump. Need to fix new leak in overboard plumbing.

Clean power generator up and running now.

Continued building gun strings.

## Daily Comment Summaries - Plan for Tomorrow


Tue 23 Apr

Continue transiting.

Deploy first ARGO and Spoondrifter floats.

Test Sonar's.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Tue 23. Apr 00:00	Tue 23. Apr 24:00	24.000
In transit to prospect, for mobilizing deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

23-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Mob Ashore	0.000	0.000
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>168.000</b>	<b>100.000</b>
Mob Ashore	144.000	85.714

# Daily Science Report

4/23/2019

Page 2

Category	Hours	%Percent
Transit to Prospect	24.000	14.286
<b>Total</b>	168.000	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		

Comment
Emperor Sea Mounts

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

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

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

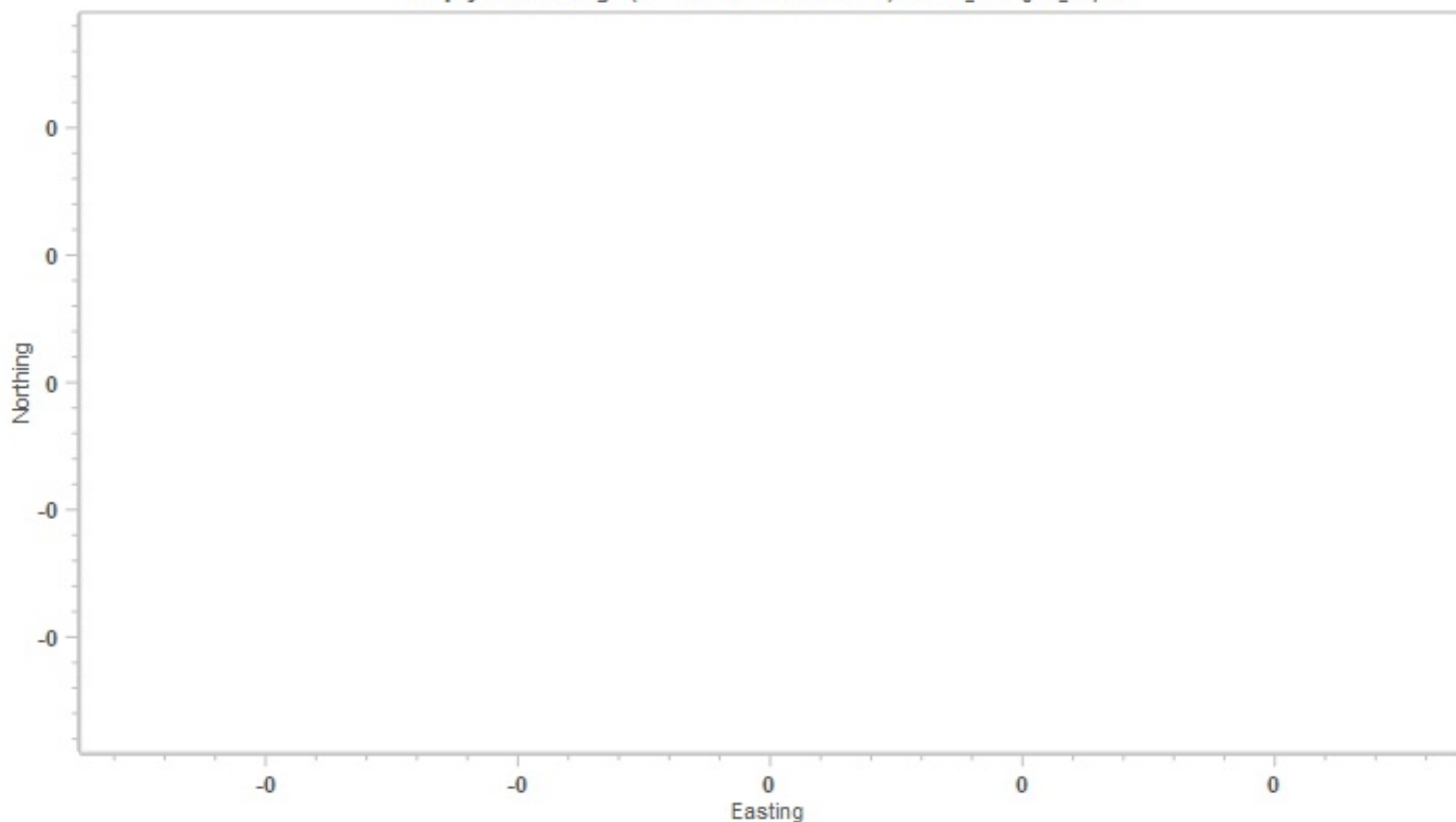
Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

# Daily Science Report

4/23/2019

Page 3

Empty Block: Chgd (4/17/2019 - 4/23/2019)MGL1902\_Shillington\_Emperor



## Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 23 Apr

### 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 23 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

# Daily Science Report

4/23/2019

Page 4

Andrea Zavala RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech



# Daily Science Report

4/24/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 24 Apr

Slowed vessel to deploy first Argo station, Spoon drifter, and XBT-T5

Tested sonars for several hours this morning.

Both uncontaminated sea water pumps are operational again.

Click tested guns.

## Daily Comment Summaries - Plan for Tomorrow



Wed 24 Apr

Continue transit to prospect area.

Stop to perform acoustic tests for GEOMAR OBS's. We will do two casts down to 2000 meters with CTD winch.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Wed 24. Apr 00:00	Wed 24. Apr 12:34	12.567
In transit to prospect, for mobilizing deployment.				
 Deployment	MB_DP	Wed 24. Apr 12:34	Wed 24. Apr 12:40	0.100
Deploy Argo unit, Deploy Spoon Drifter, Deploy XBT				
 Transit to Prospect	MB_TT	Wed 24. Apr 12:40	Wed 24. Apr 24:00	11.333
In transit to prospect, for mobilising deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

24-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Deployment	0.100	0.417
Transit to Prospect	23.900	99.583
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>192.000</b>	<b>100.000</b>
Deployment	0.100	0.052

# Daily Science Report

4/24/2019

Page 2

Category	Hours	%Percent
Mob Ashore	144.000	75.000
Transit to Prospect	47.900	24.948
<b>Total</b>	192.000	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

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

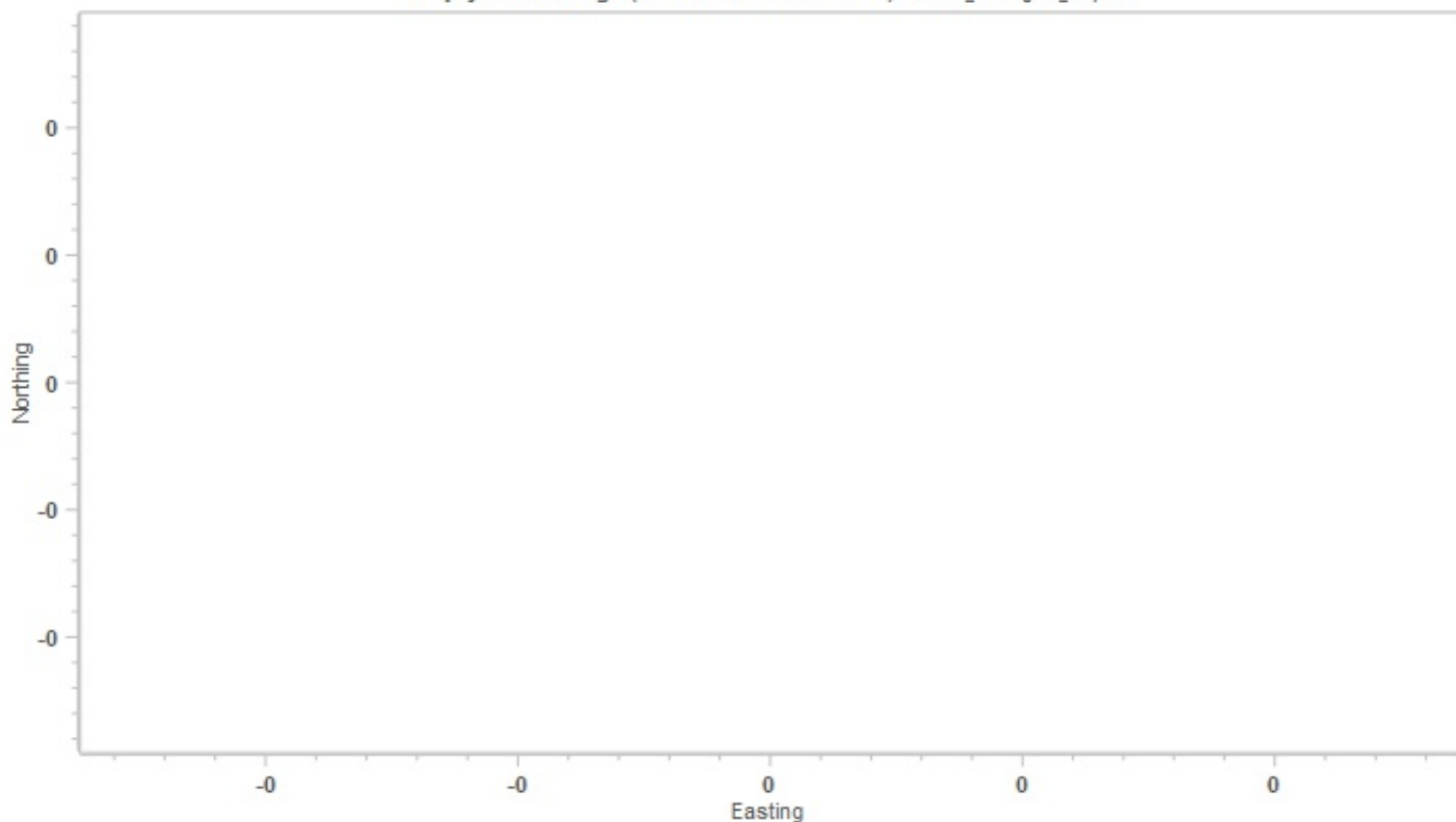
Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

# Daily Science Report

4/24/2019

Page 3

Empty Block: Chgd (4/17/2019 - 4/24/2019)MGL1902\_Shillington\_Emperor



## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 24 Apr

### 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 24 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

# Daily Science Report

4/24/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/25/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 25 Apr


Performed two CTD winch casts to test acoustic release units from Geomar.  
Deployed second Argo and Spoon drifter.

## Daily Comment Summaries - Plan for Tomorrow

Thu 25 Apr

Continue transit to prospect area.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Thu 25. Apr 00:00	Thu 25. Apr 24:00	24.000
In transit to prospect, for mobilizing deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

25-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>216.000</b>	<b>100.000</b>
Deployment	0.100	0.046
Mob Ashore	144.000	66.667
Transit to Prospect	71.900	33.287
<b>Total</b>	<b>216.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m

# Daily Science Report

4/25/2019

Page 2

MGL1902_Shillington_Emperor					
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

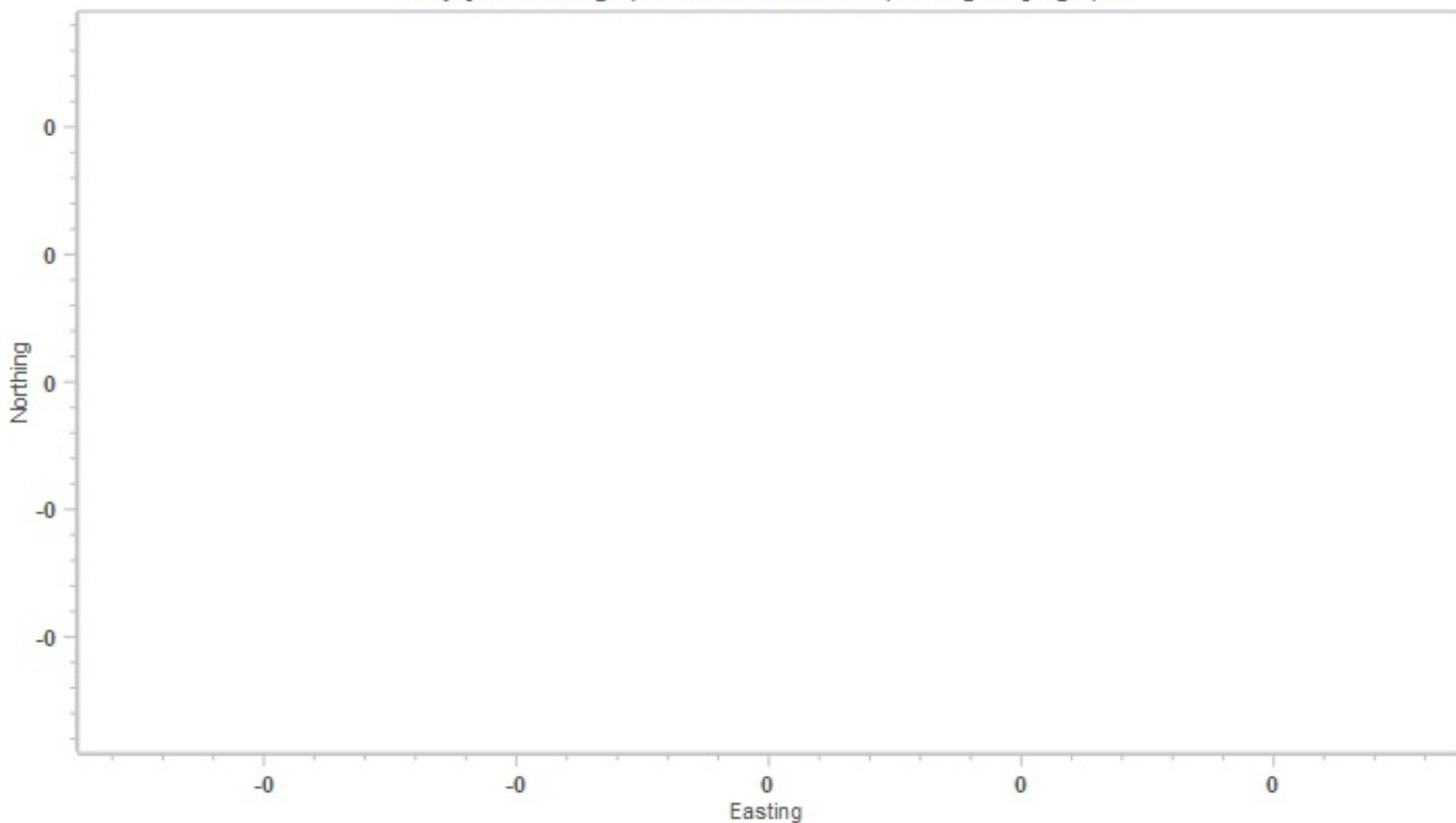
## Production Listing (Acpt km) - Prime: Sail Line, Infill: Full Fold

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
Combined	0.00	0.00	0.00	0.00

Empty Block: Chgd (4/17/2019 - 4/25/2019)MGL1902\_Shillington\_Emperor



## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 25 Apr

### Navigation:

No Major Issues to Report

# Daily Science Report

4/25/2019

Page 3

## 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:

Identified cause of minor power problem to TSG, ships electrician to make necessary repairs.

## Daily Comment Summaries - Personnel Onboard

Thu 25 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/26/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 26 Apr

Deployed third Argo and Spoon drifter.

MOB drill and presentation of MOB equipment.

Stbd main engine taken off line briefly for repairs.


Ongoing risk assessment discussions for weather and sea state.

## Daily Comment Summaries - Plan for Tomorrow

Fri 26 Apr

Continue transit to prospect.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Fri 26. Apr 00:00	Fri 26. Apr 24:00	24.000
In transit to prospect, for mobilizing deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

26-Apr	Hours	% Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>240.000</b>	<b>100.000</b>
Deployment	0.100	0.042
Mob Ashore	144.000	60.000
Transit to Prospect	95.900	39.958
<b>Total</b>	<b>240.000</b>	

## Basic Project Details

MGL1902_Shillington_Emporor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m



# Daily Science Report

4/26/2019

Page 2

MGL1902_Shillington_Emperor					
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

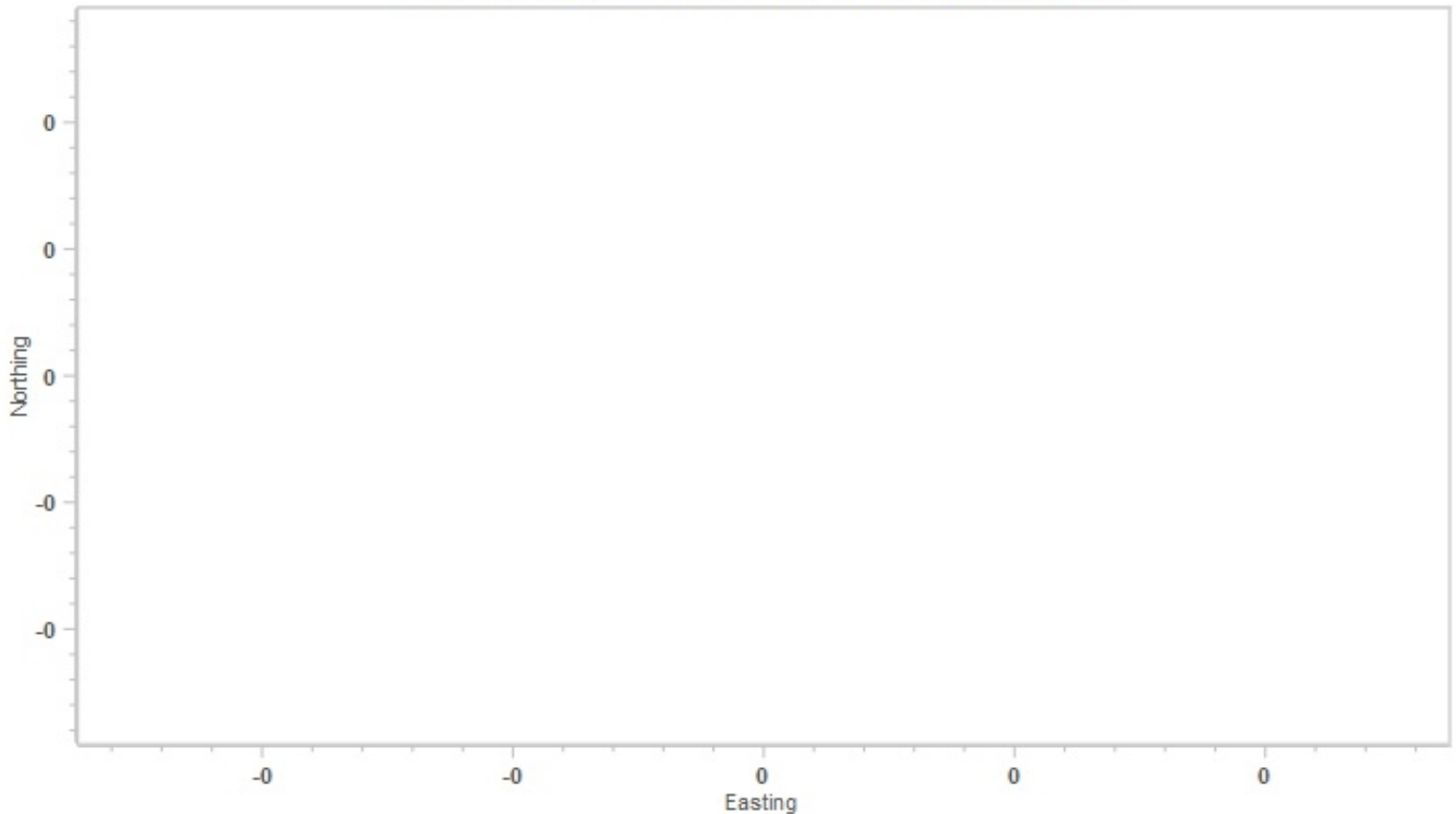
## Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

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
Combined	0.00	0.00	0.00	0.00

Empty Block: Chgd (4/17/2019 - 4/26/2019)MGL1902\_Shillington\_Emperor



# Daily Science Report

4/26/2019

Page 3

## Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 26 Apr

### 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 26 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Andrea Zavaia RPS PAM / PSO

Ana Hernandez RPS PSO

Veronica Gonzales RPS PSO

Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI

Watts, Anthony Oxford PI

Dunn, Robert University of Hawaii PI

Boston, Brian - LDEO

Cortes-Rivas, Valeria - University of Chil

Fortin, Will - LDEO

Tsekhmistrenko, Maria - Oxford

Harper, Hugh - Scripps

Lei, Mei - University of Houston

Nyugen, Luan - Rice University

Leebum, Jeff - PSU

Filbrandt, Christian - Geomar OBS Tech

Gomez Laura - Geomar OBS Tech

Schroeder, Patrick - Geomar OBS Tech

Kane, Timothy WHOI OBS tech

# Daily Science Report

4/27/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 27 Apr

Deployed fourth Argo and Spoon drifter.

Toolbox meeting to discuss building GeoMar OBS's.


We have been making slow speeds due to weather and sea state. Averaging 6-8 knots.

## Daily Comment Summaries - Plan for Tomorrow

Sat 27 Apr

Continue transit to prospect.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Sat 27. Apr 00:00	Sat 27. Apr 24:00	24.000
In transit to prospect, for mobilizing deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

27-Apr	Hours	% Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>264.000</b>	<b>100.000</b>
Deployment	0.100	0.038
Mob Ashore	144.000	54.545
Transit to Prospect	119.900	45.417
<b>Total</b>	<b>264.000</b>	

# Daily Science Report

4/27/2019

Page 2

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

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

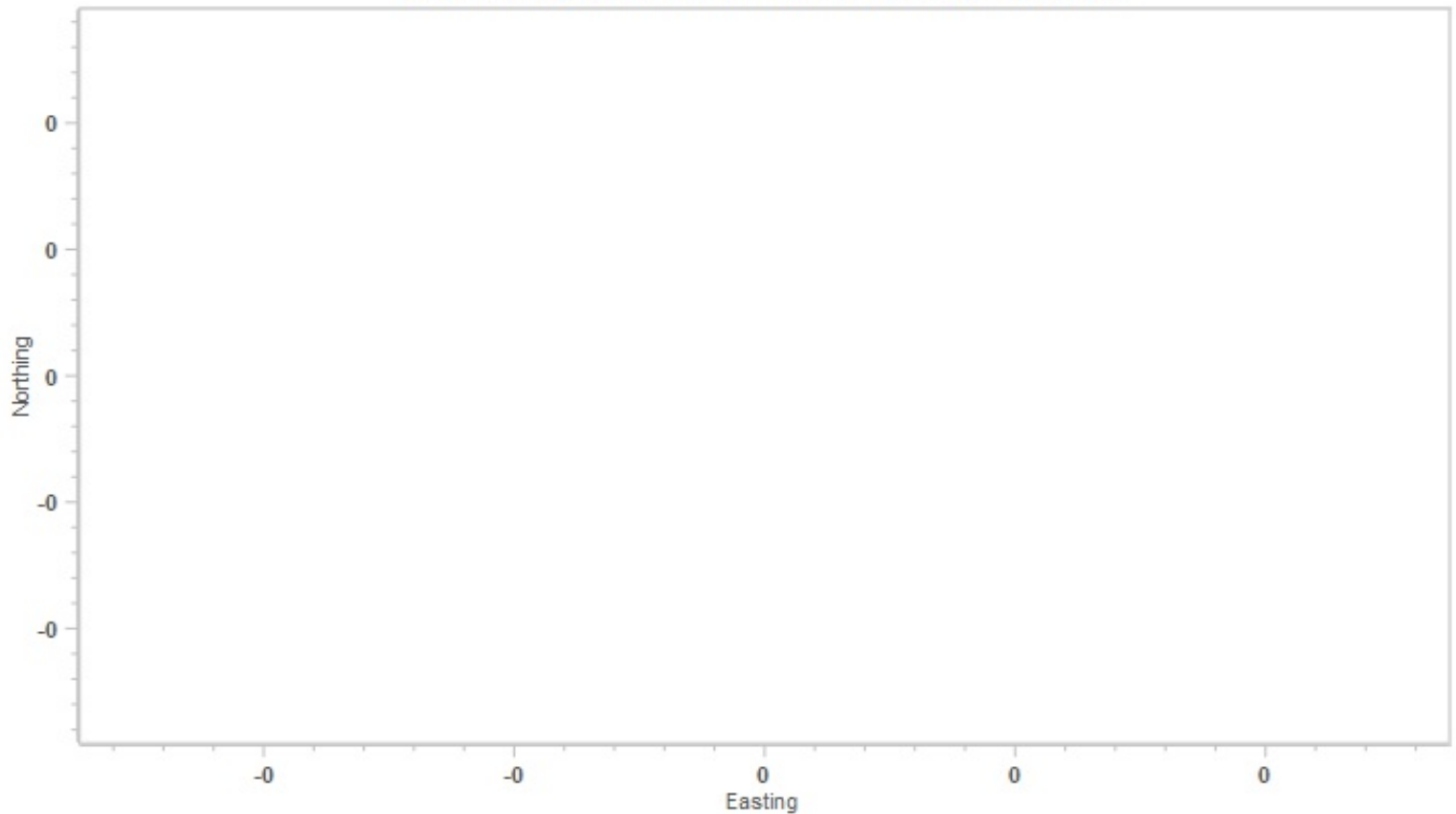
Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00

# Daily Science Report

4/27/2019

Page 3

Empty Block: Chgd (4/17/2019 - 4/27/2019)MGL1902\_Shillington\_Emperor



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 27 Apr

### 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 27 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat Apr 27 2019 07:45p.m.

Page 3

# Daily Science Report

4/27/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

4/28/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 28 Apr

We assembled the first eight GEOMAR OBS's. They are secured and ready for deployment.


Transit speeds have improved today with the sea state.

## Daily Comment Summaries - Plan for Tomorrow

Sun 28 Apr

Continue transit to prospect.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Sun 28. Apr 00:00	Sun 28. Apr 24:00	24.000
In transit to prospect, for mobilising deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

28-Apr	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>288.000</b>	<b>100.000</b>
Deployment	0.100	0.035
Mob Ashore	144.000	50.000
Transit to Prospect	143.900	49.965
<b>Total</b>	<b>288.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		

# Daily Science Report

4/28/2019

Page 2

MGL1902_Shillington_Emperor					
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

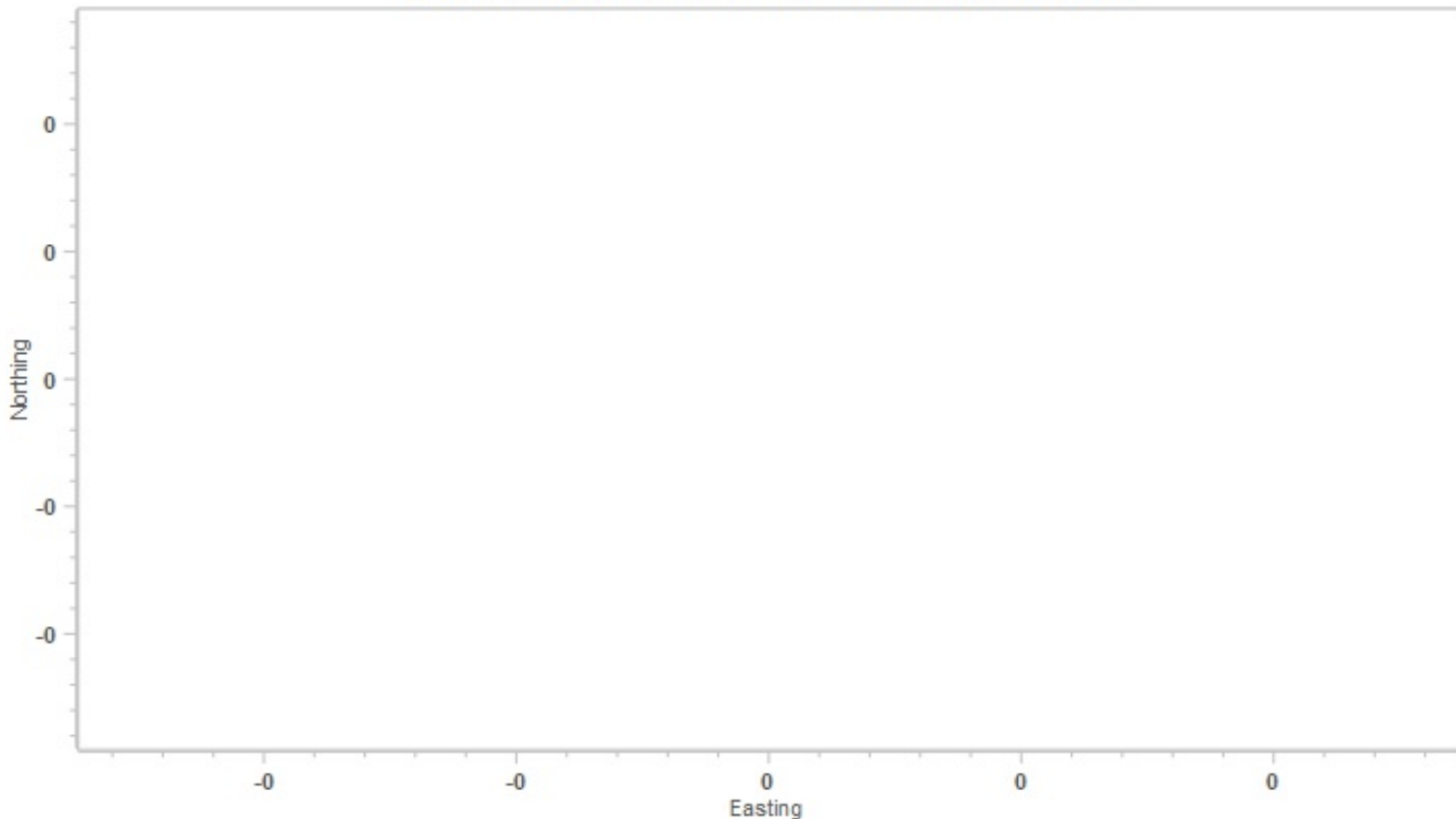
## Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

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
Combined	0.00	0.00	0.00	0.00

Empty Block: Chgd (4/17/2019 - 4/28/2019)MGL1902\_Shillington\_Emperor





# Daily Science Report

4/28/2019

Page 3

## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 28 Apr

### 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 28 Apr

### Technical Staff On-board the Langseth

Todd Jensvold LDEO OMO Chief Science Officer

Josh Kasinger LDEO OMO Chief Source Mechanic

Alan Thompson LDEO OMO Marine Science Technician - Nav

Shaun Shaver LDEO OMO Marine Science Technician - Source

Gilles Guerin LDEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (Nav)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Andrea Zavala RPS PAM / PSO

Ana Hernandez RPS PSO

Veronica Gonzales RPS PSO

Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI

Watts, Anthony Oxford PI

Dunn, Robert University of Hawaii PI

Boston, Brian - LDEO

Cortes-Rivas, Valeria - University of Chile

Fortin, Will - LDEO

Tsekhmistrenko, Maria - Oxford

Harper, Hugh - Scripps

Lei, Mei - University of Houston

Nyugen, Luan - Rice University

Leebum, Jeff - PSU

Filbrandt, Christian - Geomar OBS Tech

Gomez Laura - Geomar OBS Tech

Schroeder, Patrick - Geomar OBS Tech

Kane, Timothy WHOI OBS Tech

# Daily Science Report

4/29/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 29 Apr

Continue transit to prospect.


Deployed Argo and spoon drifter floats.

## Daily Comment Summaries - Plan for Tomorrow

Mon 29 Apr

Continue transit to prospect.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Mon 29. Apr 00:00	Mon 29. Apr 24:00	24.000
In transit to prospect, for mobilising deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

29-Apr	Hours	% Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>312.000</b>	<b>100.000</b>
Deployment	0.100	0.032
Mob Ashore	144.000	46.154
Transit to Prospect	167.900	53.814
<b>Total</b>	<b>312.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		

# Daily Science Report

4/29/2019

Page 2

MGL1902_Shillington_Emperor					
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

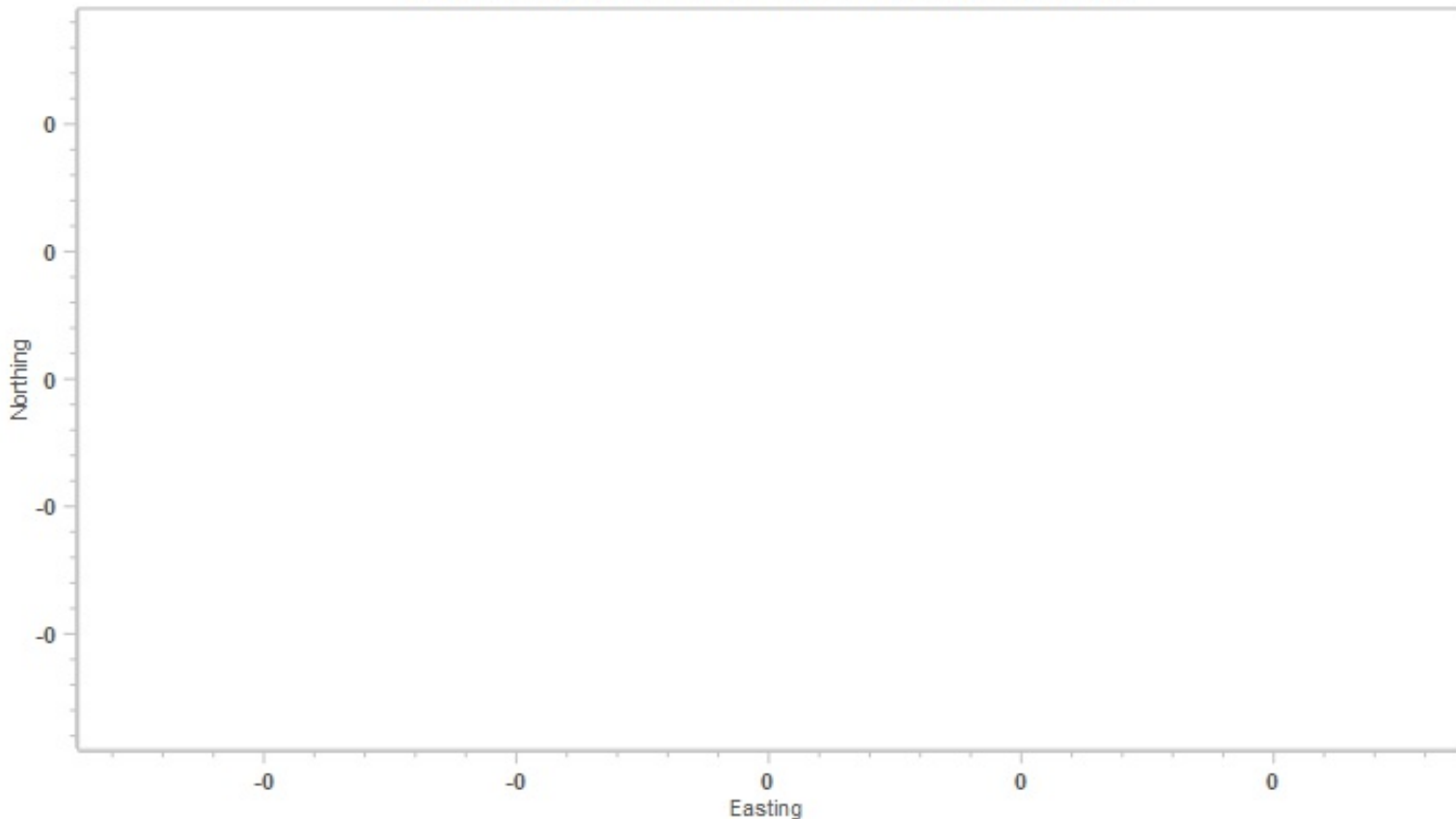
## Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

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
Combined	0.00	0.00	0.00	0.00

Empty Block: Chgd (4/17/2019 - 4/29/2019)MGL1902\_Shillington\_Emperor



# Daily Science Report

4/29/2019

Page 3

## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 29 Apr

### 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):

Welded guards onto new manifolds.

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Mon 29 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Andrea Zavaia RPS PAM / PSO

Ana Hernandez RPS PSO

Veronica Gonzales RPS PSO

Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI

Watts, Anthony Oxford PI

Dunn, Robert University of Hawaii PI

Boston, Brian - LDEO

Cortes-Rivas, Valeria - University of Chil

Fortin, Will - LDEO

Tsekhmistrenko, Maria - Oxford

Harper, Hugh - Scripps

Lei, Mei - University of Houston

Nyugen, Luan - Rice University

Leebum, Jeff - PSU

Filbrandt, Christian - Geomar OBS Tech

Gomez Laura - Geomar OBS Tech

Schroeder, Patrick - Geomar OBS Tech

Kane, Timothy WHOI OBS tech

# Daily Science Report

4/30/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Tue 30 Apr

Continue transit to prospect.

Deployed spoon drifter float.

Ran compressors and pressurized the source. Checked for leaks.

General preparations for OBS deployments.


## Daily Comment Summaries - Plan for Tomorrow

Tue 30 Apr

Continue transit to prospect.

Begin acquiring multi-beam data.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Tue 30. Apr 00:00	Tue 30. Apr 24:00	24.000
In transit to prospect, for mobilising deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

30-Apr	Hours	% Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>336.000</b>	<b>100.000</b>
Deployment	0.100	0.030
Mob Ashore	144.000	42.857
Transit to Prospect	191.900	57.113
<b>Total</b>	<b>336.000</b>	

# Daily Science Report

4/30/2019

Page 2

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

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

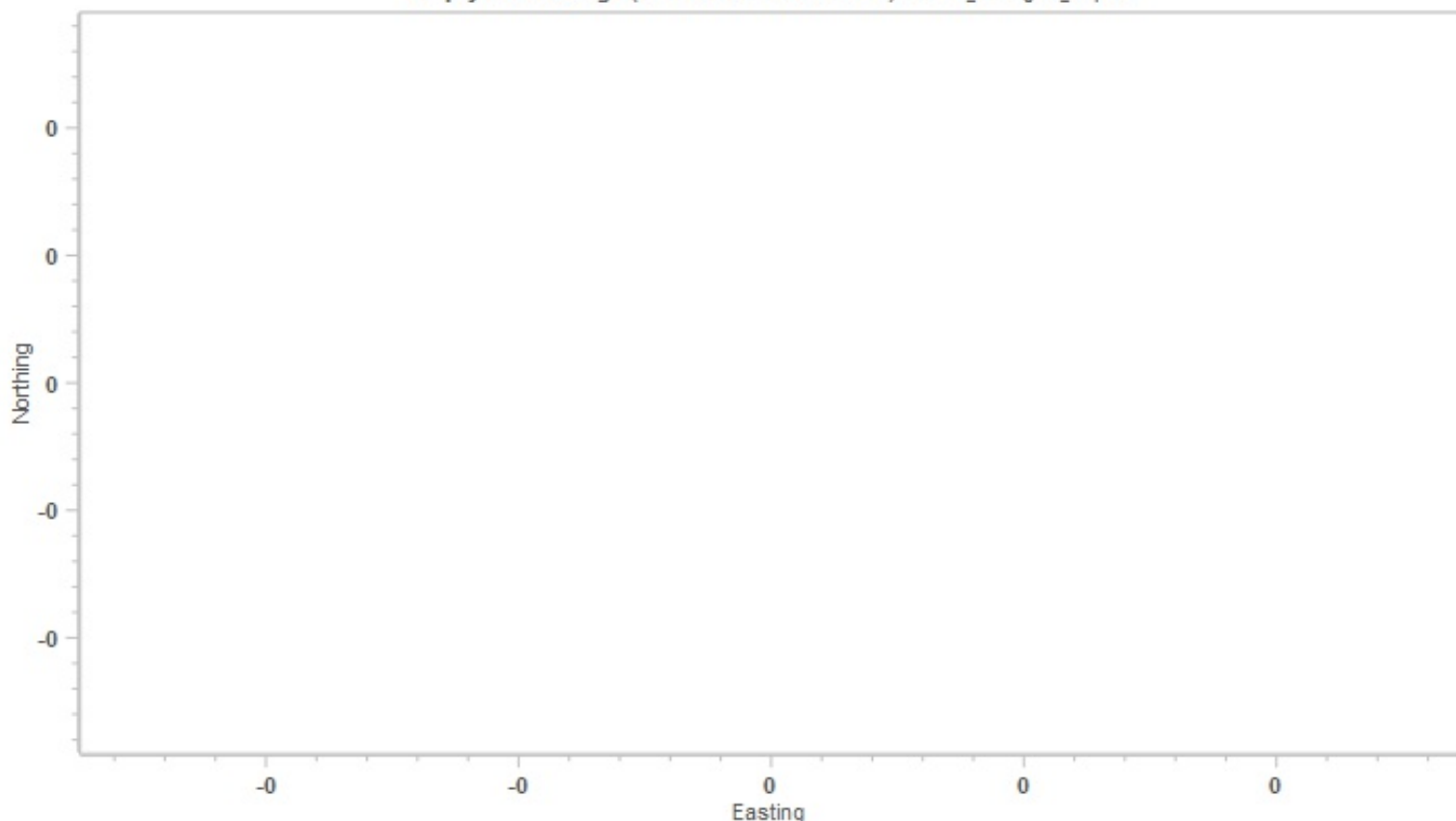
Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00

# Daily Science Report

4/30/2019

Page 3

Empty Block: Chgd (4/17/2019 - 4/30/2019)MGL1902\_Shillington\_Emperor



## Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 30 Apr

### 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 30 Apr

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue Apr 30 2019 02:45p.m.

Page 3

# Daily Science Report

4/30/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech



# Daily Science Report

5/1/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 01 May

Continue transit to prospect.

Safety walk-through completed. Preparing for building seas and OBS deployments.


Reviewed OBS deployment procedures.

## Daily Comment Summaries - Plan for Tomorrow

Wed 01 May

Begin deployment of OBS's

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Wed 1. May 00:00	Wed 1. May 24:00	24.000
In transit to prospect, for mobilising deployment.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

1-May	Hours	%Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit to Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>360.000</b>	<b>100.000</b>
Deployment	0.100	0.028
Mob Ashore	144.000	40.000
Transit to Prospect	215.900	59.972
<b>Total</b>	<b>360.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		

# Daily Science Report

5/1/2019

Page 2

MGL1902_Shillington_Emperor					
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

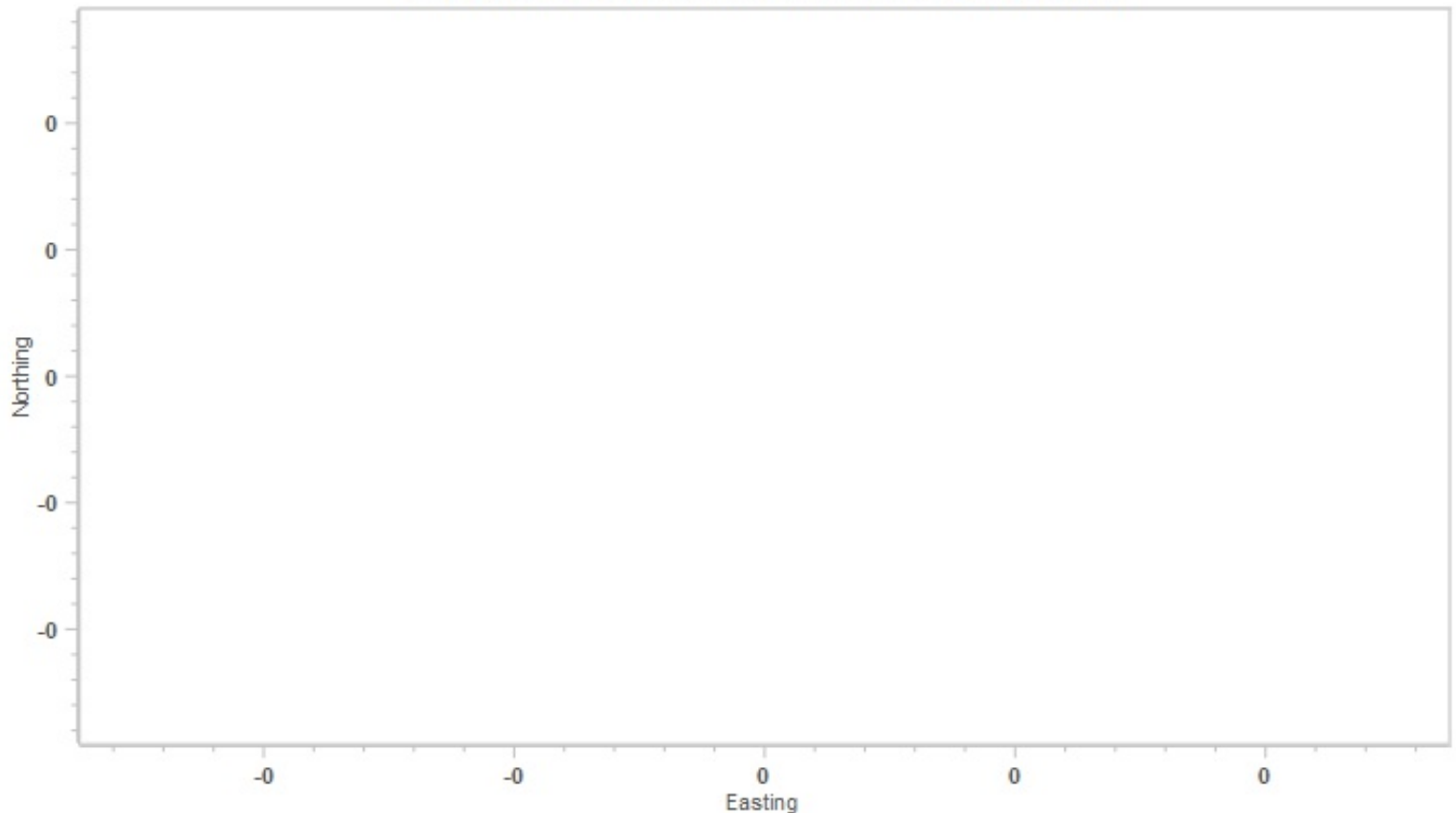
## Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

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
Combined	0.00	0.00	0.00	0.00

Empty Block: Chgd (4/17/2019 - 5/1/2019)MGL1902\_Shillington\_Emperor



# Daily Science Report

5/1/2019

Page 3

## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 01 May

### Navigation:

No Major Issues to Report

### Information Technology (IT):

No Major Issues to Report

### Acquisition (OBS):

Missing two pressure caps for GEOMAR OBS pressure tubes.

### Towing and Handling (Source):

No Major Issues to Report

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Wed 01 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

Andrea Zavaia RPS PAM / PSO

Ana Hernandez RPS PSO

Veronica Gonzales RPS PSO

Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI

Watts, Anthony Oxford PI

Dunn, Robert University of Hawaii PI

Boston, Brian - LDEO

Cortes-Rivas, Valeria - University of Chil

Fortin, Will - LDEO

Tsekhmistrenko, Maria - Oxford

Harper, Hugh - Scripps

Lei, Mei - University of Houston

Nyugen, Luan - Rice University

Leebum, Jeff - PSU

Filbrandt, Christian - Geomar OBS Tech

Gomez Laura - Geomar OBS Tech

Schroeder, Patrick - Geomar OBS Tech

Kane, Timothy WHOI OBS tech

# Daily Science Report

5/2/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>		<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 02 May






We have deployed the first four OBS's. The weather has picked up considerably. We will continue to assess the safety of the crew working on the deck during the deployments.

## Daily Comment Summaries - Plan for Tomorrow

Thu 02 May

Continue deploying OBS's


## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Transit to Prospect	MB_TT	Thu 2. May 00:00	Thu 2. May 19:25	19.417
In transit to prospect, for mobilising deployment.				
 Deployment	MB_DP	Thu 2. May 19:25	Thu 2. May 20:41	1.267
Deploy OBS 130 and transit to OBS 129				
 Deployment	MB_DP	Thu 2. May 20:41	Thu 2. May 21:54	1.217
Deploy OBS 129 and transit to OBS 128				
 Deployment	MB_DP	Thu 2. May 21:54	Thu 2. May 23:13	1.317
Deploy OBS 128 and transit to OBS 127				
 Deployment	MB_DP	Thu 2. May 23:13	Thu 2. May 24:00	0.783
Deploy OBS 126 and transit to OBS 125				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

2-May	Hours	% Percent
 Mobilisation	24.000	100.000
Deployment	4.583	19.097
Transit to Prospect	19.417	80.903
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	% Percent
 Mobilisation	384.000	100.000
Deployment	4.683	1.220
Mob Ashore	144.000	37.500
Transit to Prospect	235.317	61.280

# Daily Science Report

5/2/2019

Page 2

Category	Hours	%Percent
Total	384.000	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

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

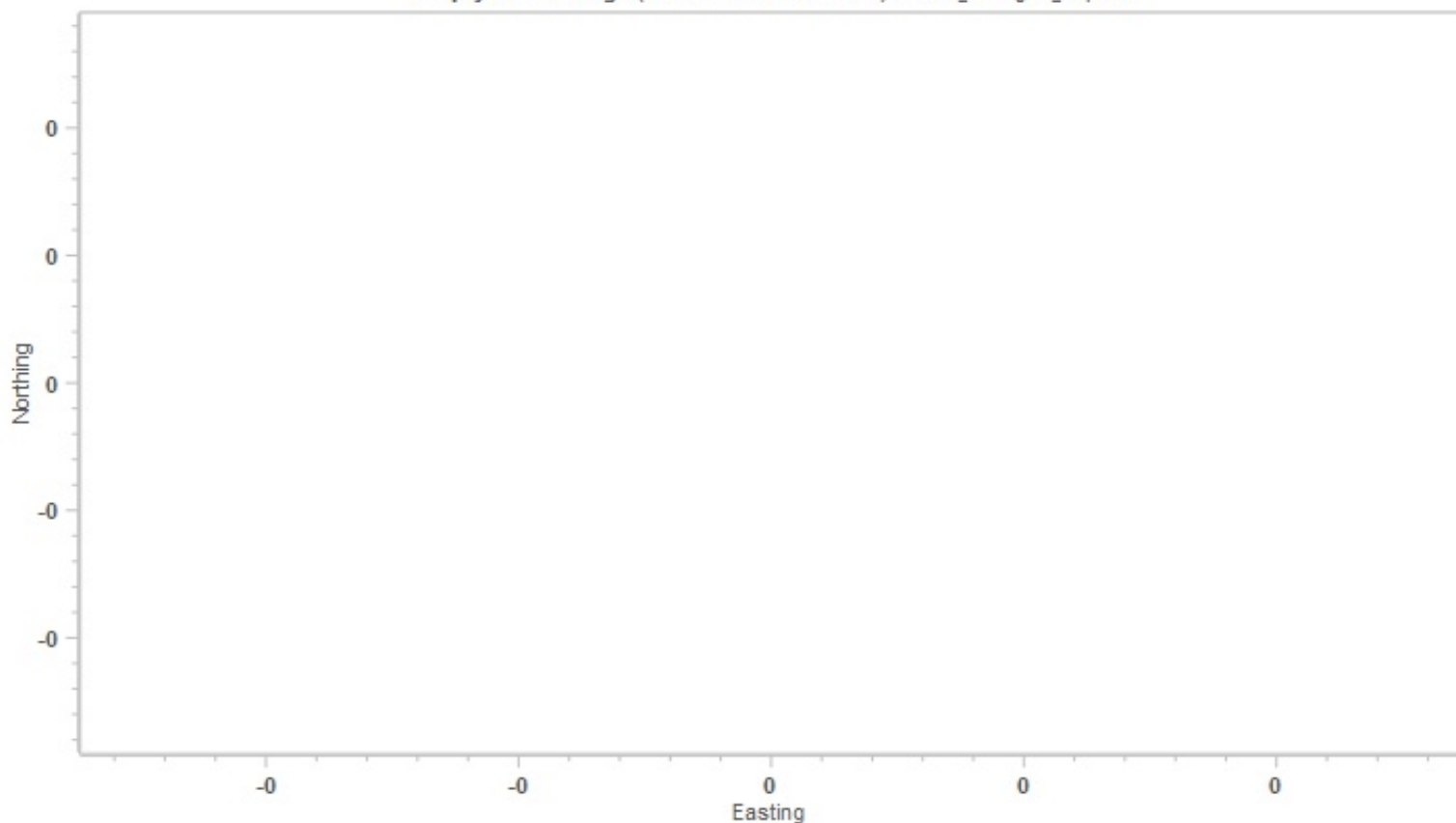
Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
Combined	0.00	0.00	0.00	0.00

# Daily Science Report

5/2/2019

Page 3

Empty Block: Chgd (4/17/2019 - 5/2/2019)MGL1902\_Shillington\_Emporer



## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 02 May

### 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 02 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

# Daily Science Report

5/2/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/3/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 03 May

We have deployed 22 OBS's by 03:00 UTC. The weather has picked up considerably.













## Daily Comment Summaries - Plan for Tomorrow

Fri 03 May

Continue deployment of OBS's and source arrays, weather permitting.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Deployment	MB_DP	Fri 3. May 00:00	Fri 3. May 00:21	0.350
Continue transit to OBS 126				
 Deployment	MB_DP	Fri 3. May 00:21	Fri 3. May 01:39	1.300
Deploy OBS 126 and transit to OBS 125				
 Deployment	MB_DP	Fri 3. May 01:39	Fri 3. May 02:58	1.317
Deploy OBS 125 and transit to OBS 124				
 Weather	NC_WX	Fri 3. May 02:58	Fri 3. May 08:45	5.783
Standby due to weather. Winds SW 30-45 knots, Seas 12-18ft				
 Deployment	MB_DP	Fri 3. May 08:45	Fri 3. May 09:45	1.000
Deploy OBS 124 and transit to OBS 123				
 Deployment	MB_DP	Fri 3. May 09:45	Fri 3. May 11:05	1.333
Deploy OBS 123 and transit to OBS 122				
 Deployment	MB_DP	Fri 3. May 11:05	Fri 3. May 12:14	1.150
Deploy OBS 122 and transit to OBS 121				
 Deployment	MB_DP	Fri 3. May 12:14	Fri 3. May 13:07	0.883
Deploy OBS 121 and transit to OBS 120				
 Deployment	MB_DP	Fri 3. May 13:07	Fri 3. May 14:09	1.033
Deploy OBS 120 and transit to OBS 119				
 Deployment	MB_DP	Fri 3. May 14:09	Fri 3. May 15:13	1.067
Deploy OBS 119 and transit to OBS 118				
 Deployment	MB_DP	Fri 3. May 15:13	Fri 3. May 16:11	0.967
Deploy OBS 118 and transit to OBS 117				
 Deployment	MB_DP	Fri 3. May 16:11	Fri 3. May 17:13	1.033
Deploy OBS 117 and transit to OBS 116				



# Daily Science Report

5/3/2019

Page 2

Category	Code	Start	End	Duration
Deployment	MB_DP	Fri 3. May 17:13	Fri 3. May 18:32	1.317
Deploy OBS 116 and transit to OBS 115				
Deployment	MB_DP	Fri 3. May 18:32	Fri 3. May 19:47	1.250
Deploy OBS 115 and transit to OBS 114				
Deployment	MB_DP	Fri 3. May 19:47	Fri 3. May 20:46	0.983
Deploy OBS 114 and transit to OBS 113				
Deployment	MB_DP	Fri 3. May 20:46	Fri 3. May 21:49	1.050
Deploy OBS 113 and transit to OBS 112				
Deployment	MB_DP	Fri 3. May 21:49	Fri 3. May 23:02	1.217
Deploy OBS 112 and transit to OBS 111				
Deployment	MB_DP	Fri 3. May 23:02	Fri 3. May 24:00	0.967
Deploy OBS 111 and transit to OBS 110				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

3-May	Hours	%Percent
Mobilisation	18.217	75.903
Deployment	18.217	75.903
Non-Chargeable StandBy	5.783	24.097
Weather	5.783	24.097
Day's Total	24.000	100.000

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
Mobilisation	402.217	98.583
Deployment	22.900	5.613
Mob Ashore	144.000	35.294
Transit to Prospect	235.317	57.676
Non-Chargeable StandBy	5.783	1.417
Weather	5.783	1.417
Total	408.000	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m

# Daily Science Report

5/3/2019

Page 3

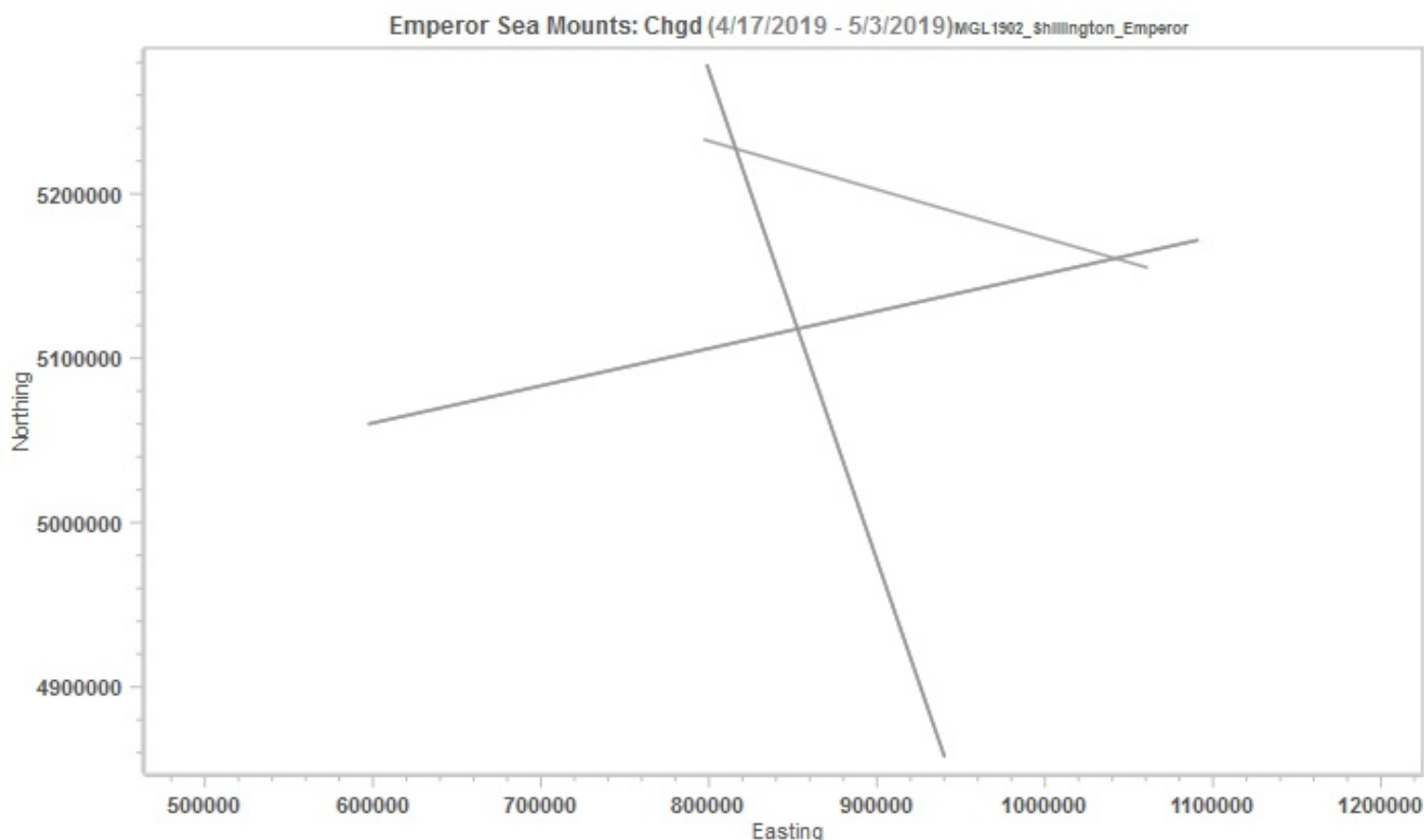
MGL1902_Shillington_Empperor					
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

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
Combined	0.00	0.00	0.00	0.00



## Daily Comment Summaries - Daily Comments On Status of Equipment

### Fri 03 May

#### Navigation:

No Major Issues to Report

#### Information Technology (IT):

No Major Issues to Report

#### Acquisition (OBS):

No Major Issues to Report

# Daily Science Report

5/3/2019

Page 4

## Towing and Handling (Source):

No Major Issues to Report

## General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Fri 03 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/4/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 04 May

Down for WX most of the day. Deployed three OBS's and aborted three attempts due to rough seas.

## Daily Comment Summaries - Plan for Tomorrow

Sat 04 May

Deploy the last five OBS's onto the dip line. We will deploy the source array's, maggie, PAM cable and then begin acquisition.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
Deployment	MB_DP	Sat 4. May 00:00	Sat 4. May 00:21	0.350
Deploy OBS 111 and transit to OBS 110				
Deployment	MB_DP	Sat 4. May 00:21	Sat 4. May 01:44	1.383
Deploy OBS 110 and transit to OBS 109				
Deployment	MB_DP	Sat 4. May 01:44	Sat 4. May 03:10	1.433
Deploy OBS 109 and transit to OBS 108				
Weather	NC_WX	Sat 4. May 03:10	Sat 4. May 24:00	20.833
Standby due to weather. Made several aborted attempts to deploy OBS's. Wind and seas were too strong.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

4-May	Hours	% Percent
Mobilisation	3.167	13.194
Deployment	3.167	13.194
Non-Chargeable StandBy	20.833	86.806
Weather	20.833	86.806
Day's Total	24.000	100.000

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
Mobilisation	405.383	93.839
Deployment	26.067	6.034
Mob Ashore	144.000	33.333
Transit to Prospect	235.317	54.471
Non-Chargeable StandBy	26.617	6.161

# Daily Science Report

5/4/2019

Page 2

Category	Hours	%Percent
Weather	26.617	6.161
<b>Total</b>	432.000	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

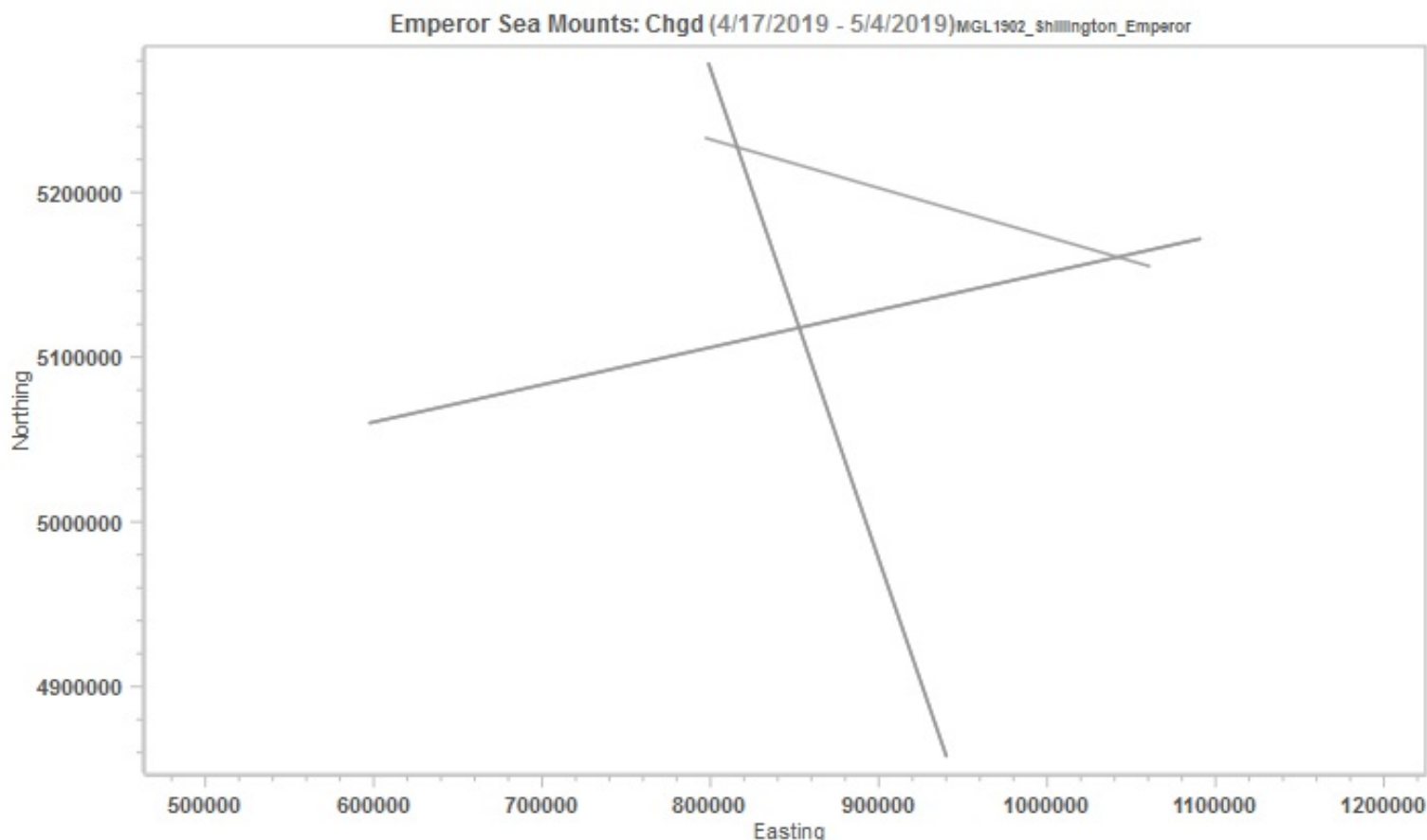
## Production Totals (Chgd km) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	0.00
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

# Daily Science Report

5/4/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 04 May

### 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 04 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat May 4 2019 04:17p.m.

Page 3

# Daily Science Report

5/4/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/5/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 05 May

We deployed the last of the OBS's, Magnetometer, PAM cable and the Source Array. We began production on line MGL1902 OB01 at 22:01 UTC.

We changed nine tow points on the source sub array's, several solenoids, pigtails and jumpers during the deployment.

We estimate the finish of this line in approximately 2.5 days. (Wednesday, May 8th).











## Daily Comment Summaries - Plan for Tomorrow

Sun 05 May

Continue acquiring line MGL1902 OB01

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Weather	NC_WX	Sun 5. May 00:00	Sun 5. May 00:56	0.933
Standby due to weather. Made several aborted attempts to deploy OBS's. Wind and seas were too strong.				
 Deployment	MB_DP	Sun 5. May 00:56	Sun 5. May 02:13	1.283
Deploy OBS 108 and transit to OBS 107				
 Deployment	MB_DP	Sun 5. May 02:13	Sun 5. May 03:45	1.533
Deploy OBS 107 and transit to OBS 106				
 Deployment	MB_DP	Sun 5. May 03:45	Sun 5. May 05:14	1.483
Deploy OBS 106 and transit to OBS 105				
 Deployment	MB_DP	Sun 5. May 05:14	Sun 5. May 06:42	1.467
Deploy OBS 105 and transit to OBS 104				
 Deployment	MB_DP	Sun 5. May 06:42	Sun 5. May 08:03	1.350
Deploy OBS 104 and transit to OBS 103				
 Deployment	MB_DP	Sun 5. May 08:03	Sun 5. May 08:13	0.167
Deploy OBS 103. All OBS's deployed onto Line MGL1902 OB01				
 Deployment	MB_DP	Sun 5. May 08:13	Sun 5. May 09:27	1.233
Securing decks, preparing to deploy source arrays.				
 Deployment	MB_DP	Sun 5. May 09:27	Sun 5. May 10:11	0.733
Deploying Magnetometer and PAM cables.				
 Deployment	MB_DP	Sun 5. May 10:11	Sun 5. May 12:11	2.000



# Daily Science Report

5/5/2019

Page 2

Category	Code	Start	End	Duration
Deploying sub array #4				
Deployment	MB_DP	Sun 5. May 12:11	Sun 5. May 13:04	0.883
Deploying sub array #3				
Deployment	MB_DP	Sun 5. May 13:04	Sun 5. May 14:35	1.517
Deploying sub array #1				
Deployment	MB_DP	Sun 5. May 14:35	Sun 5. May 15:35	1.000
Deploying sub array #2				
Deployment	MB_DP	Sun 5. May 15:35	Sun 5. May 16:34	0.983
Turning toward line				
Deployment	MB_DP	Sun 5. May 16:34	Sun 5. May 16:55	0.350
Soft start ramp up of source array				
Deployment	MB_DP	Sun 5. May 16:55	Sun 5. May 18:14	1.317
Recover sub array #3				
Deployment	MB_DP	Sun 5. May 18:14	Sun 5. May 18:50	0.600
Recover sub array #4				
Deployment	MB_DP	Sun 5. May 18:50	Sun 5. May 20:24	1.567
Source maintenance on sub array's 3 and 4				
Deployment	MB_DP	Sun 5. May 20:24	Sun 5. May 20:40	0.267
Re-deploying sub array #4				
Deployment	MB_DP	Sun 5. May 20:40	Sun 5. May 22:01	1.350
Re-deploying sub array #3 and source volume adjustments. 36 guns 6380 in3				
Production Prime	AC_PP	Sun 5. May 22:01	Sun 5. May 24:00	1.983
SOL MGL 1902 OB01 SEQ 1				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empor)

5-May	Hours	%Percent
Acquisition	1.983	8.264
Production Prime	1.983	8.264
Mobilisation	21.083	87.847
Deployment	21.083	87.847
Non-Chargeable StandBy	0.933	3.889
Weather	0.933	3.889
Day's Total	24.000	100.000

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Hours	%Percent
Mobilisation	426.467	93.523
Deployment	47.150	10.340
Mob Ashore	144.000	31.579
Transit to Prospect	235.317	51.605

# Daily Science Report

5/5/2019

Page 3

Category	Hours	%Percent
<b>Acquisition</b>	<b>1.983</b>	<b>0.435</b>
Production Prime	1.983	0.435
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>6.042</b>
Weather	27.550	6.042
<b>Total</b>	<b>456.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	01OB	77.2	390	690	Prime	15.00	4.084	Part	Midnight
<b>Total</b>						<b>15.00</b>			

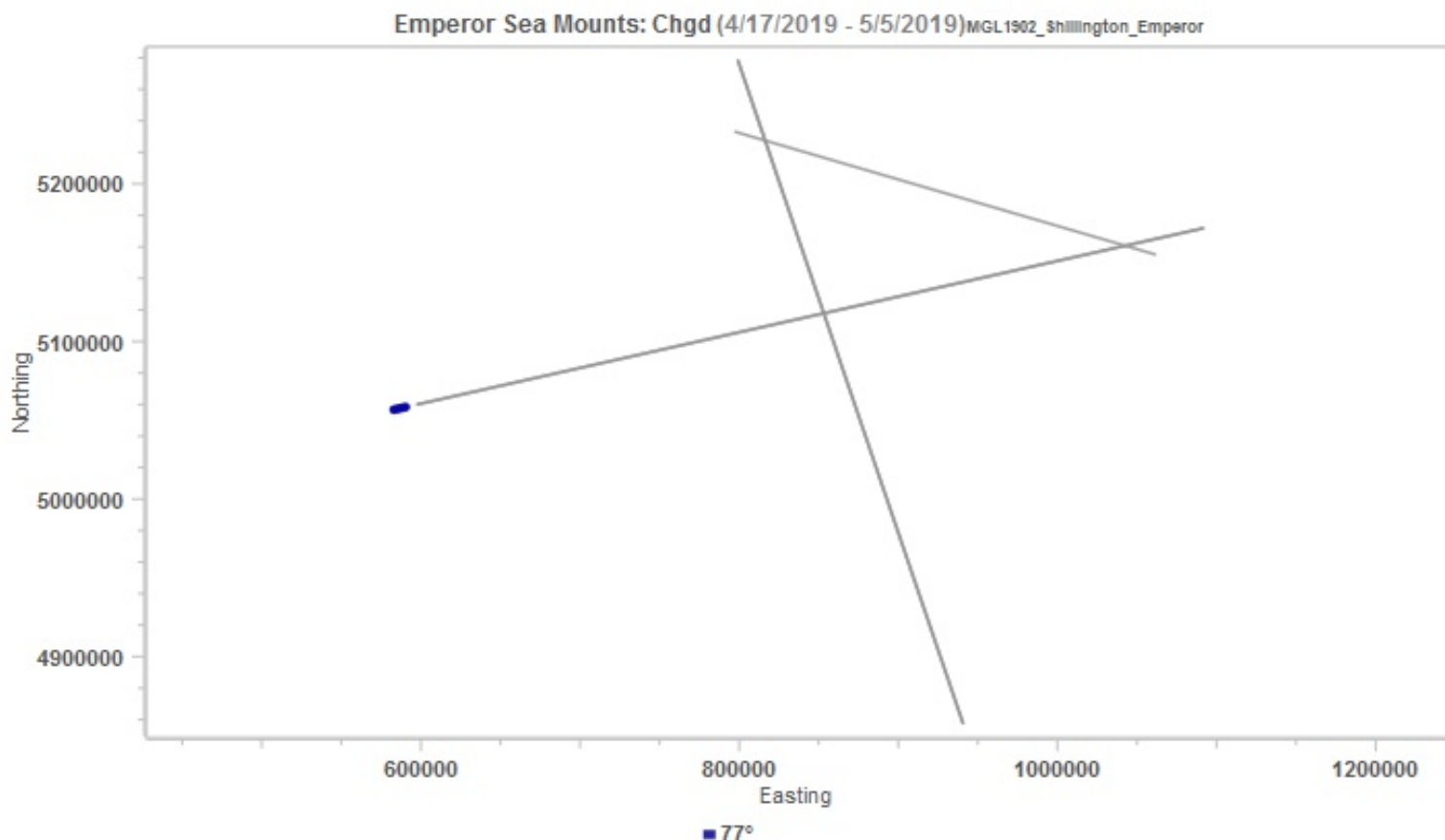
## Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	15.00	15.00	15.00	15.00
<b>Combined</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>

# Daily Science Report

5/5/2019

Page 4



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 05 May

### 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):

Replaced several pigtails, solenoids and jumpers. The stbd compressor had to be swapped out for repairs/maintenance during deployment.

### General Purpose Science:

Magnetometer is piking intermittently and we will troubleshoot at soonest opportunity.

## Daily Comment Summaries - Personnel Onboard

Sun 05 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Mon May 6 2019 05:31a.m.

Page 4

# Daily Science Report

5/5/2019

Page 5

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/5/2019

Page 1, Revision 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 05 May

We deployed the last of the OBS's, Magnetometer, PAM cable and the Source Array. We began production on line MGL1902 OB01 at 22:01 UTC.

We changed nine tow points on the source sub array's, several solenoids, pigtails and jumpers during the deployment.

We estimate the finish of this line in approximately 2.5 days. (Wednesday, May 8th).

## Daily Comment Summaries - Plan for Tomorrow

Sun 05 May

Continue acquiring line MGL1902 OB01

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
Weather	NC_WX	Sun 5. May 00:00	Sun 5. May 00:56	0.933
Standby due to weather. Made several aborted attempts to deploy OBS's. Wind and seas were too strong.				
Deployment	MB_DP	Sun 5. May 00:56	Sun 5. May 02:13	1.283
Deploy OBS 108 and transit to OBS 107				
Deployment	MB_DP	Sun 5. May 02:13	Sun 5. May 03:45	1.533
Deploy OBS 107 and transit to OBS 106				
Deployment	MB_DP	Sun 5. May 03:45	Sun 5. May 05:14	1.483
Deploy OBS 106 and transit to OBS 105				
Deployment	MB_DP	Sun 5. May 05:14	Sun 5. May 06:42	1.467
Deploy OBS 105 and transit to OBS 104				
Deployment	MB_DP	Sun 5. May 06:42	Sun 5. May 08:03	1.350
Deploy OBS 104 and transit to OBS 103				
Deployment	MB_DP	Sun 5. May 08:03	Sun 5. May 08:13	0.167
Deploy OBS 103. All OBS's deployed onto Line MGL1902 OB01				
Deployment	MB_DP	Sun 5. May 08:13	Sun 5. May 09:27	1.233
Securing decks, preparing to deploy source arrays.				
Deployment	MB_DP	Sun 5. May 09:27	Sun 5. May 10:11	0.733
Deploying Magnetometer and PAM cables.				
Deployment	MB_DP	Sun 5. May 10:11	Sun 5. May 12:11	2.000

# Daily Science Report

5/5/2019

Page 2, Revision 1

Category	Code	Start	End	Duration
Deploying sub array #4				
Deployment	MB_DP	Sun 5. May 12:11	Sun 5. May 13:04	0.883
Deploying sub array #3				
Deployment	MB_DP	Sun 5. May 13:04	Sun 5. May 14:35	1.517
Deploying sub array #1				
Deployment	MB_DP	Sun 5. May 14:35	Sun 5. May 15:35	1.000
Deploying sub array #2				
Deployment	MB_DP	Sun 5. May 15:35	Sun 5. May 16:34	0.983
Turning toward line				
Deployment	MB_DP	Sun 5. May 16:34	Sun 5. May 16:55	0.350
Soft start ramp up of source array				
Deployment	MB_DP	Sun 5. May 16:55	Sun 5. May 18:14	1.317
Recover sub array #3				
Deployment	MB_DP	Sun 5. May 18:14	Sun 5. May 18:50	0.600
Recover sub array #4				
Deployment	MB_DP	Sun 5. May 18:50	Sun 5. May 20:24	1.567
Source maintenance on sub array's 3 and 4				
Deployment	MB_DP	Sun 5. May 20:24	Sun 5. May 20:40	0.267
Re-deploying sub array #4				
Deployment	MB_DP	Sun 5. May 20:40	Sun 5. May 22:01	1.350
Re-deploying sub array #3 and source volume adjustments. 36 guns 6380 in3				
Production Prime	AC_PP	Sun 5. May 22:01	Sun 5. May 24:00	1.983
SOL MGL 1902 OB01 SEQ 1				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empor)

5-May	Hours	%Percent
Acquisition	1.983	8.264
Production Prime	1.983	8.264
Mobilisation	21.083	87.847
Deployment	21.083	87.847
Non-Chargeable StandBy	0.933	3.889
Weather	0.933	3.889
Day's Total	24.000	100.000

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Hours	%Percent
Mobilisation	426.467	93.523
Deployment	47.150	10.340
Mob Ashore	144.000	31.579
Transit to Prospect	235.317	51.605

# Daily Science Report

5/5/2019

Page 3, Revision 1

Category	Hours	%Percent
<b>Acquisition</b>	<b>1.983</b>	<b>0.435</b>
Production Prime	1.983	0.435
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>6.042</b>
Weather	27.550	6.042
<b>Total</b>	<b>456.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	01OB	77.2	899	950	Prime	2.55	0.694	Part	Midnight
<b>Total</b>						<b>2.55</b>			

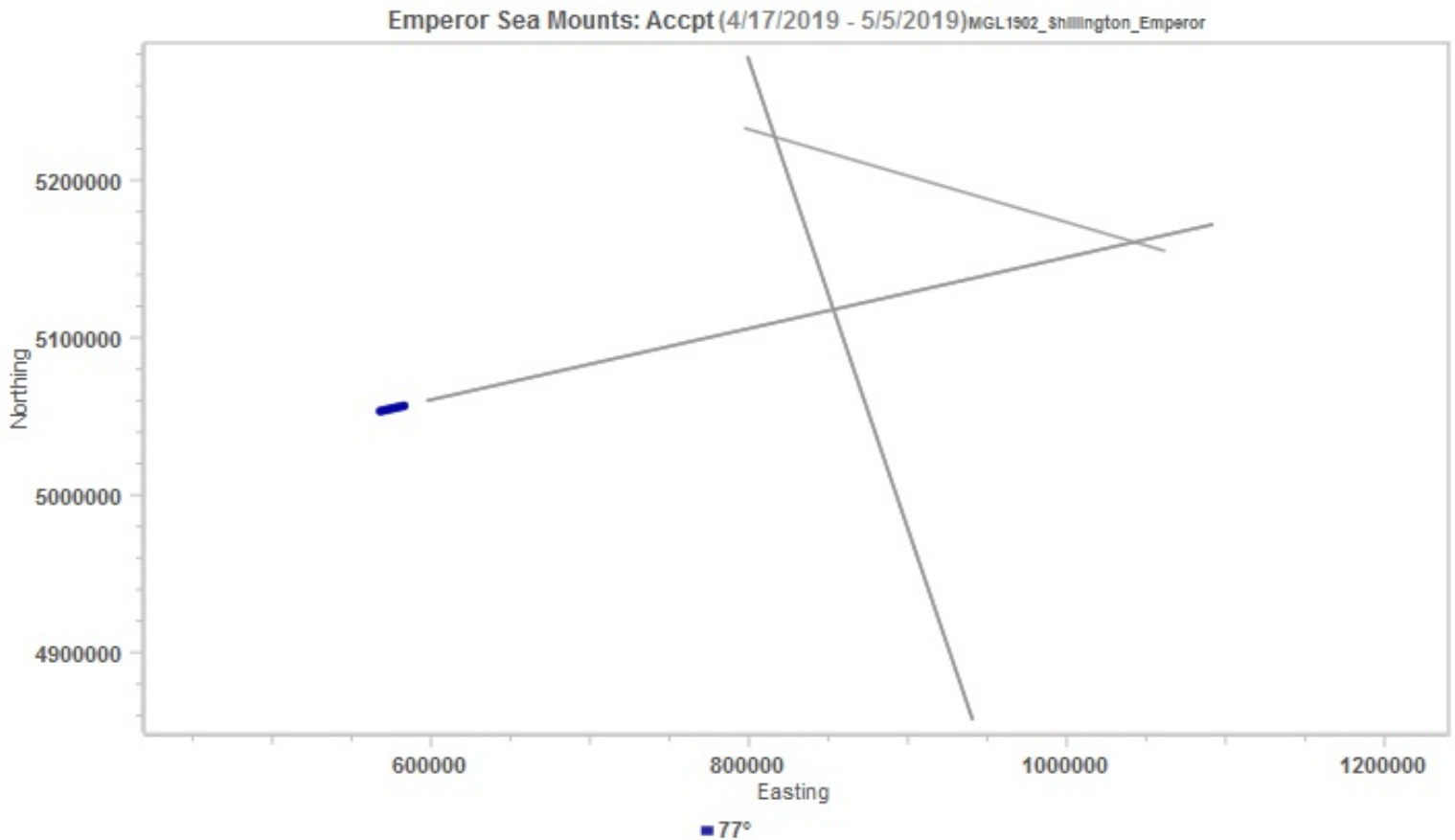
## Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	2.55	2.55	2.55	2.55
<b>Combined</b>	<b>2.55</b>	<b>2.55</b>	<b>2.55</b>	<b>2.55</b>

# Daily Science Report

5/5/2019

Page 4, Revision 1



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 05 May

### 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):

Replaced several pigtails, solenoids and jumpers. The stbd compressor had to be swapped out for repairs/maintenance during deployment.

### General Purpose Science:

Magnetometer is piking intermittently and we will troubleshoot at soonest opportunity.

## Daily Comment Summaries - Personnel Onboard

Sun 05 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Wed May 8 2019 08:57a.m.

Page 4

Revision 1



# Daily Science Report

5/5/2019

Page 5, Revision 1

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/6/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 06 May


We shot uninterrupted throughout the day. Weather is favorable.

## Daily Comment Summaries - Plan for Tomorrow

Mon 06 May

We will continue to shoot throughout the day.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Empemor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Mon 6. May 00:00	Mon 6. May 24:00	24.000
SOL MGL 1902 OB01 SEQ 1				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empemor)

6-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empemor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>426.467</b>	<b>88.847</b>
Deployment	47.150	9.823
Mob Ashore	144.000	30.000
Transit to Prospect	235.317	49.024
<b>Acquisition</b>	<b>25.983</b>	<b>5.413</b>
Production Prime	25.983	5.413
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>5.740</b>
Weather	27.550	5.740
<b>Total</b>	<b>480.000</b>	

# Daily Science Report

5/6/2019

Page 2

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	01OB	77.2	691	4577	Prime	194.35	4.350	Part	Midnight
Total						194.35			

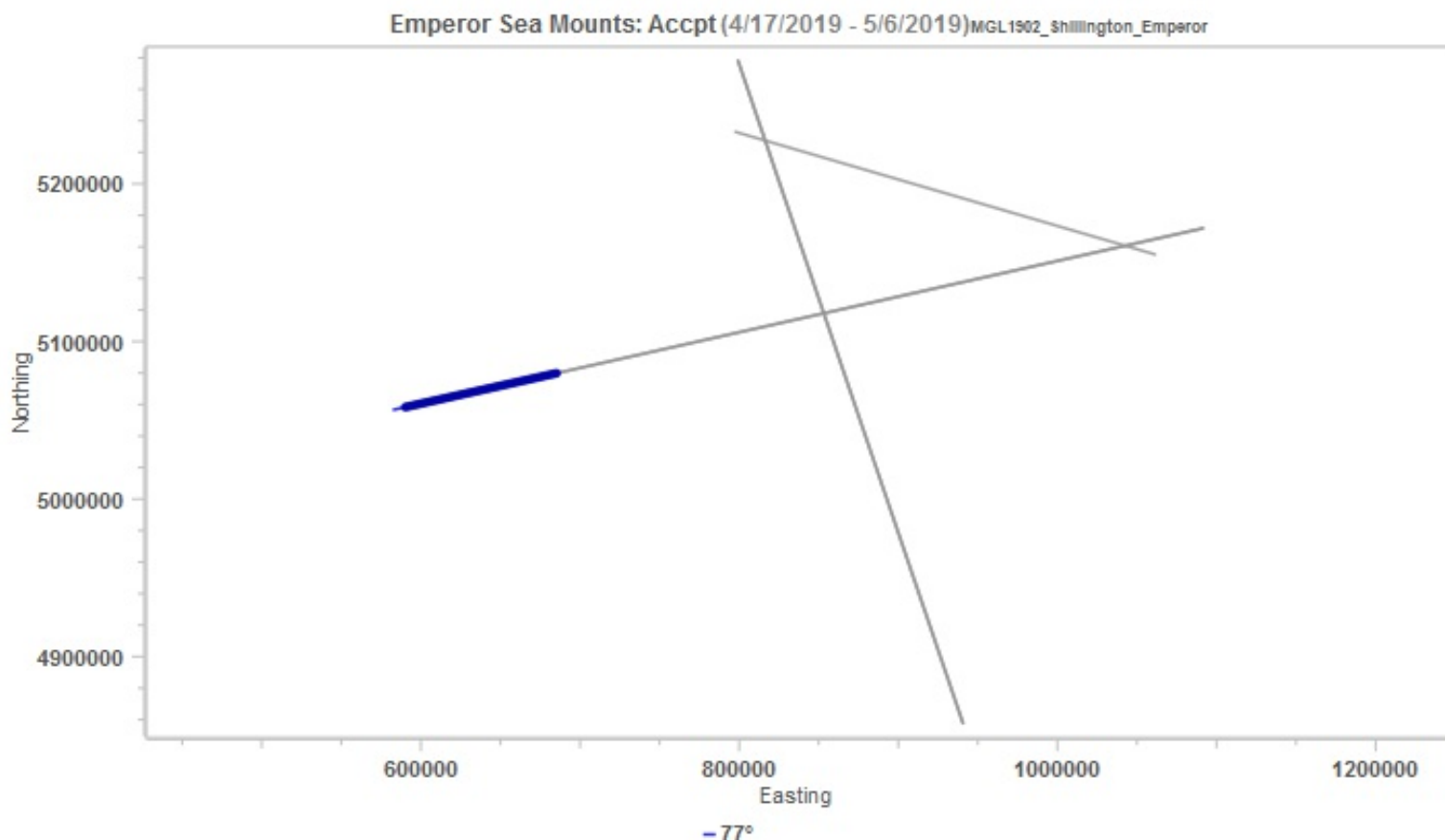
## Production Totals (Accpt km by interval) - Prime: Sail Line, Infill: Full Fold

Accepted km	Day	Week	Month	Project
Prime	194.35	194.35	209.35	209.35
Combined	194.35	194.35	209.35	209.35

# Daily Science Report

5/6/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 06 May

### 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:

We adjusted the Magnetometer lay back to try and solve the intermittent spiking in the data. Our crab angle is making it difficult to retrieve. We will troubleshoot this problem further when the source array is back onboard.

## Daily Comment Summaries - Personnel Onboard

Mon 06 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue May 7 2019 06:58a.m.

Page 3

# Daily Science Report

5/6/2019

Page 4

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/6/2019

Page 1, Revision 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 06 May


We shot uninterrupted throughout the day. Weather is favorable.

## Daily Comment Summaries - Plan for Tomorrow

Mon 06 May

We will continue to shoot throughout the day.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Empperor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Mon 6. May 00:00	Mon 6. May 24:00	24.000
SOL MGL 1902 OB01 SEQ 1				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empperor)

6-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>426.467</b>	<b>88.847</b>
Deployment	47.150	9.823
Mob Ashore	144.000	30.000
Transit to Prospect	235.317	49.024
<b>Acquisition</b>	<b>25.983</b>	<b>5.413</b>
Production Prime	25.983	5.413
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>5.740</b>
Weather	27.550	5.740
<b>Total</b>	<b>480.000</b>	

# Daily Science Report

5/6/2019

Page 2, Revision 1

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	01OB	77.2	951	1596	Prime	32.30	0.724	Part	Midnight
Total						32.30			

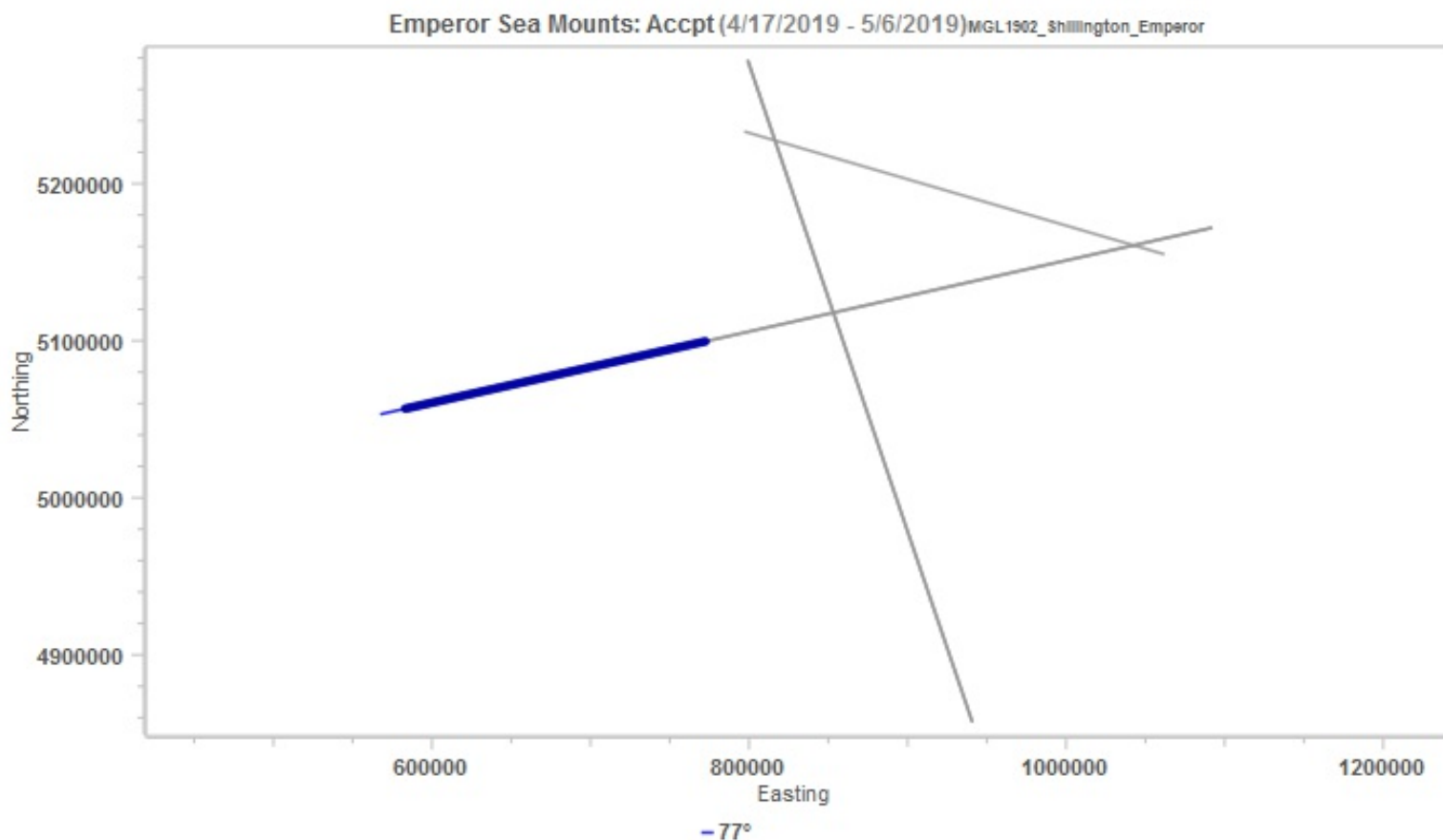
## Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	32.30	32.30	34.85	34.85
Combined	32.30	32.30	34.85	34.85

# Daily Science Report

5/6/2019

Page 3, Revision 1



## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 06 May

### 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:

We adjusted the Magnetometer lay back to try and solve the intermittent spiking in the data. Our crab angle is making it difficult to retrieve. We will troubleshoot this problem further when the source array is back onboard.

## Daily Comment Summaries - Personnel Onboard

Mon 06 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Wed May 8 2019 08:56a.m.

Page 3

Revision 1



# Daily Science Report

5/6/2019

Page 4, Revision 1

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/7/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Tue 07 May




We had an air leak on sub-array #3 that caused the gun (3-6) to auto-fire. We retrieved this sub-array to make repairs while circling back to reshoot some of the affected data. Repairs were made and we were back into full production in about two hours.

## Daily Comment Summaries - Plan for Tomorrow

Tue 07 May

We will finish the first OBS line tomorrow morning about 3 AM local. We will turn around immediately at the EOL and start picking up guns en route to the first OBS recovery.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Tue 7. May 00:00	Tue 7. May 03:09	3.150
SOL MGL 1902 OB01 SEQ 1				
 Source	DT_SC	Tue 7. May 03:09	Tue 7. May 05:22	2.217
Downtime due to source. Recovered sub-array #3 for auto-fire.				
 Production Prime	AC_PP	Tue 7. May 05:22	Tue 7. May 24:00	18.633

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

7-May	Hours	%Percent
<b>Acquisition</b>	<b>21.783</b>	<b>90.764</b>
Production Prime	21.783	90.764
<b>DownTime</b>	<b>2.217</b>	<b>9.236</b>
Source	2.217	9.236
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>426.467</b>	<b>84.616</b>
Deployment	47.150	9.355
Mob Ashore	144.000	28.571
Transit to Prospect	235.317	46.690
<b>Acquisition</b>	<b>47.767</b>	<b>9.478</b>

# Daily Science Report

5/7/2019

Page 2

Category	Hours	%Percent
Production Prime	47.767	9.478
<b>DownTime</b>	<b>2.217</b>	<b>0.440</b>
Source	2.217	0.440
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>5.466</b>
Weather	27.550	5.466
<b>Total</b>	<b>504.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	01OB	77.2	1597	1684	Prime	3.60	0.732	Complete	Complete
NTBP: 1668 - 1684 (chgd)									
2	01OB	77.2	1685	2172	Prime	24.35	0.740	Part	Midnight
Overlap (not chgd): 1661 - 1684, NTBP: 1661 - 1684 (not chgd)									
<b>Total</b>						<b>27.95</b>			

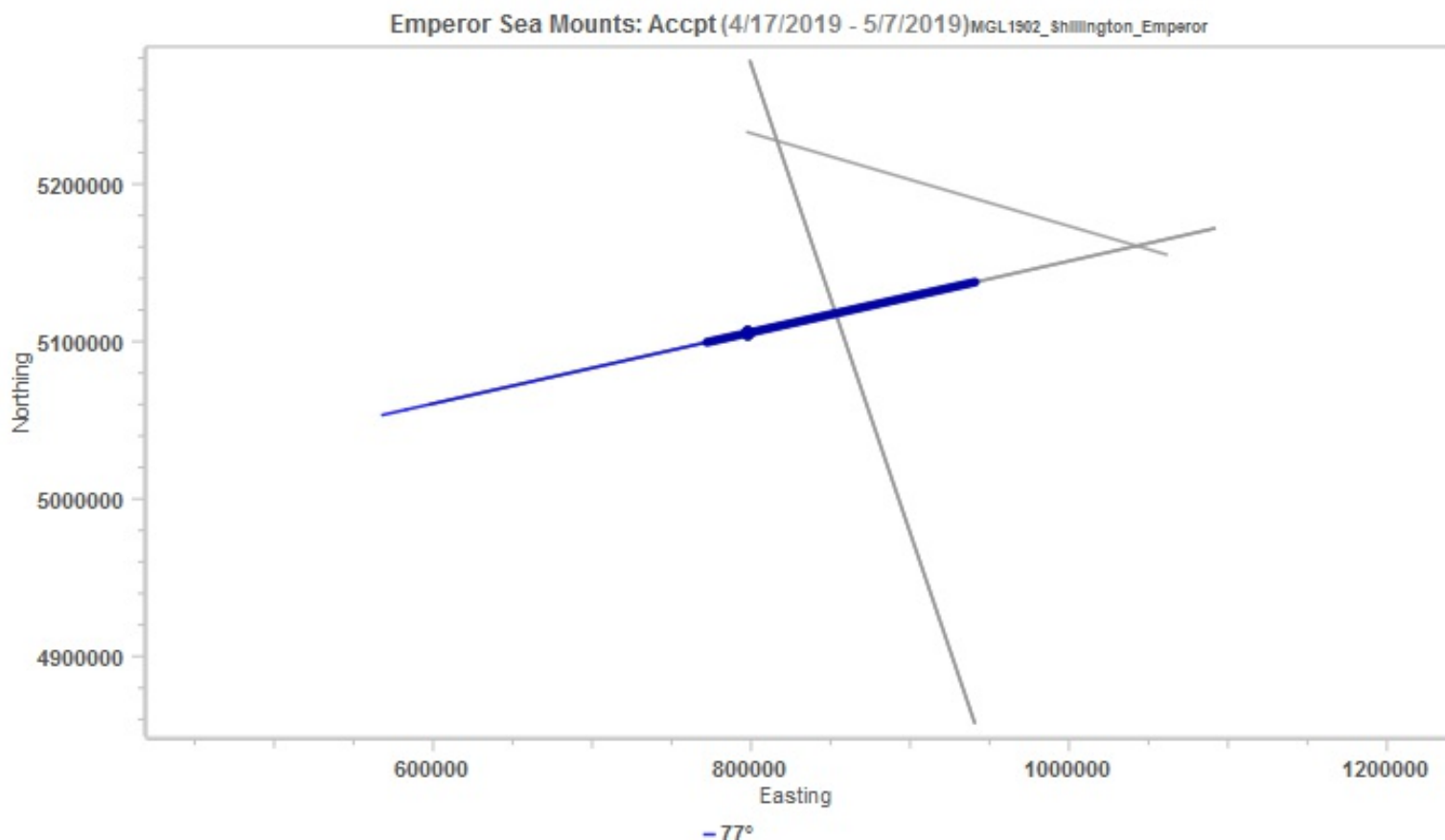
## Production Totals (Chgd km by interval) - Prime: Sail Line, Infill: Full Fold

Charged km	Day	Week	Month	Project
Prime	4.40	36.70	39.25	39.25
<b>Combined</b>	<b>4.40</b>	<b>36.70</b>	<b>39.25</b>	<b>39.25</b>

# Daily Science Report

5/7/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 07 May

### 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 07 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Wed May 8 2019 08:47a.m.

Page 3

# Daily Science Report

5/7/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/8/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 08 May

We completed OBS 01B this morning. We recovered the source array, Maggie and PAM cables. We then transited back to OBS130 and recovered three OBS's by 24:00 UTC.

Several toolbox meetings to discuss and improve the source retrievals and OBS retrievals.








## Daily Comment Summaries - Plan for Tomorrow

Wed 08 May

We will continue to recover the OBS's all day.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)



Category	Code	Start	End	Duration
 Production Prime	AC_PP	Wed 8. May 00:00	Wed 8. May 13:38	13.633
 Prime Line Change	AC_PLC	Wed 8. May 13:38	Wed 8. May 13:52	0.233
Turn around to recover source				
 Source Reconfig	SB_REC_SC	Wed 8. May 13:52	Wed 8. May 16:52	3.000
Recovering Source arrays ahead of OBS recovery operations				
 Reconfiguration	MB_RC	Wed 8. May 16:52	Wed 8. May 18:31	1.650
Recovery OBS 130				
 Reconfiguration	MB_RC	Wed 8. May 18:31	Wed 8. May 21:16	2.750
Recovery OBS 129				
 Reconfiguration	MB_RC	Wed 8. May 21:16	Wed 8. May 23:34	2.300
Recovery OBS 128				
 Reconfiguration	MB_RC	Wed 8. May 23:34	Wed 8. May 24:00	0.433
Recovery OBS 127				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

8-May	Hours	%Percent
<b>Acquisition</b>	<b>13.867</b>	<b>57.778</b>
Prime Line Change	0.233	0.972
Production Prime	13.633	56.806
<b>Chargeable Standby</b>	<b>3.000</b>	<b>12.500</b>
Reconfiguration	3.000	12.500

# Daily Science Report

5/8/2019

Page 2

8-May	Hours	%Percent
Source Reconfig	3.000	12.500
<b>Mobilisation</b>	<b>7.133</b>	<b>29.722</b>
Reconfiguration	7.133	29.722
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>433.600</b>	<b>82.121</b>
Deployment	47.150	8.930
Mob Ashore	144.000	27.273
Reconfiguration	7.133	1.351
Transit to Prospect	235.317	44.568
<b>Acquisition</b>	<b>61.633</b>	<b>11.673</b>
Prime Line Change	0.233	0.044
Production Prime	61.400	11.629
<b>DownTime</b>	<b>2.217</b>	<b>0.420</b>
Source	2.217	0.420
<b>Chargeable Standby</b>	<b>3.000</b>	<b>0.568</b>
Reconfiguration	3.000	0.568
Source Reconfig	3.000	0.568
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>5.218</b>
Weather	27.550	5.218
<b>Total</b>	<b>528.000</b>	

## Basic Project Details

MGL1902_Shillington_Empedor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

# Daily Science Report

5/8/2019

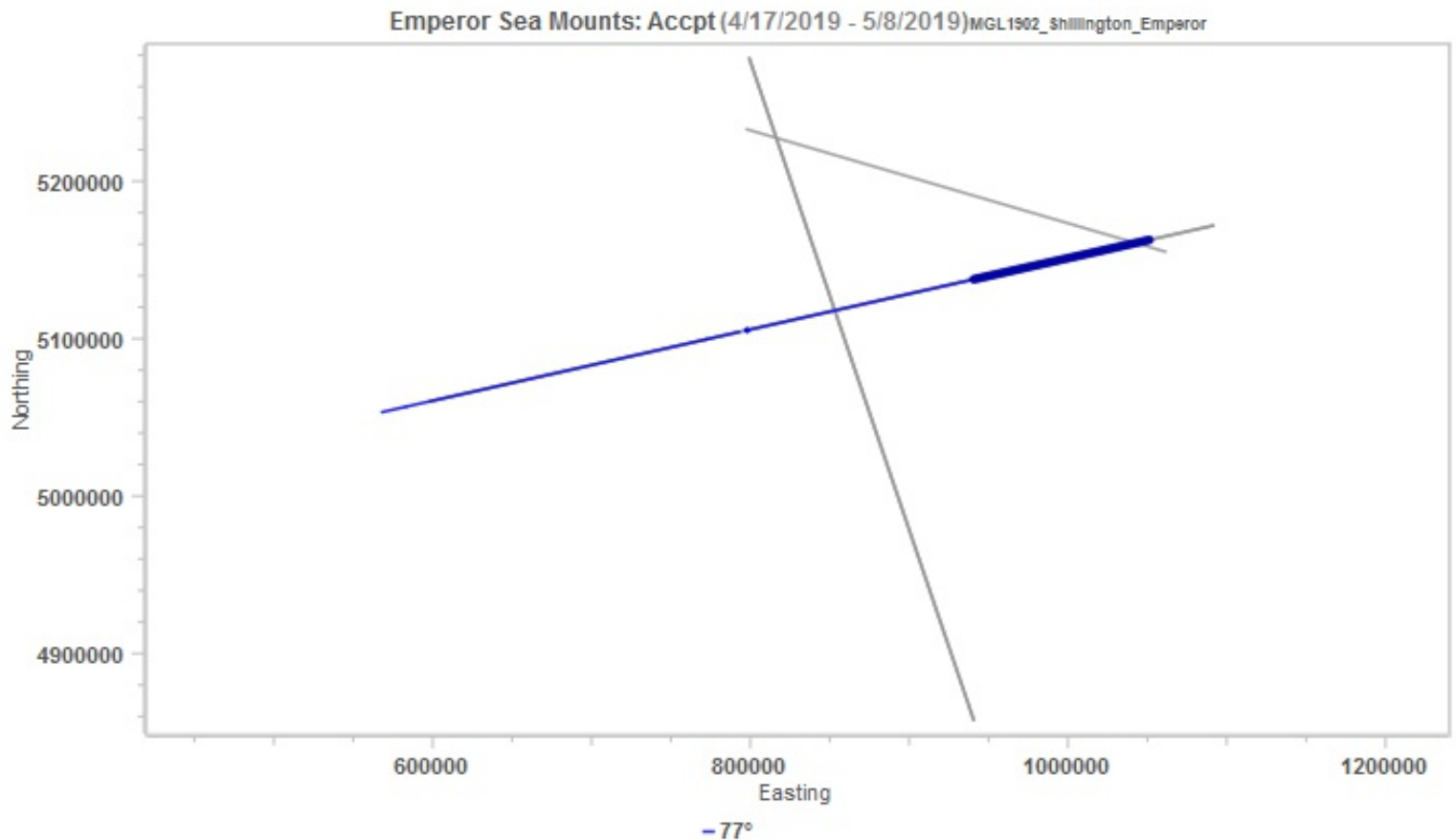
Page 3

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
2	01OB	77.2	2173	2549	Prime	18.85	0.743	Complete	Complete
Total						18.85			

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

Charged km	Day	Week	Month	Project
Prime	0.00	36.70	39.25	39.25
Combined	0.00	36.70	39.25	39.25



## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 08 May

**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):**

Several floats and ropes need repairs. Normal maintenance will be done.

### General Purpose Science:

Measure the tow points on the magnetometer cable.



# Daily Science Report

5/8/2019

Page 4

## Daily Comment Summaries - Personnel Onboard

Wed 08 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/9/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 09 May

Recovered OBS's all day long. Weather has been very favorable.

Making preparations for MCS deployment and acquisition.







## Daily Comment Summaries - Plan for Tomorrow

Thu 09 May

We will recover OBS's all day.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Reconfiguration	MB_RC	Thu 9. May 00:00	Thu 9. May 01:56	1.933
Recovery OBS 127				
 Reconfiguration	MB_RC	Thu 9. May 01:56	Thu 9. May 04:19	2.383
Recovery OBS 126				
 Reconfiguration	MB_RC	Thu 9. May 04:19	Thu 9. May 06:57	2.633
Recovery OBS 125				
 Reconfiguration	MB_RC	Thu 9. May 06:57	Thu 9. May 09:27	2.500
Recovery OBS 124				
 Reconfiguration	MB_RC	Thu 9. May 09:27	Thu 9. May 12:11	2.733
Recovery OBS 123				
 Reconfiguration	MB_RC	Thu 9. May 12:11	Thu 9. May 14:45	2.567
Recovery OBS 122				
 Reconfiguration	MB_RC	Thu 9. May 14:45	Thu 9. May 17:52	3.117
Recovery OBS 121				
 Reconfiguration	MB_RC	Thu 9. May 17:52	Thu 9. May 20:33	2.683
Recovery OBS 120				
 Reconfiguration	MB_RC	Thu 9. May 20:33	Thu 9. May 22:34	2.017
Recovery OBS 119				
 Reconfiguration	MB_RC	Thu 9. May 22:34	Thu 9. May 24:00	1.433
Recovery OBS 117 (OBS 118 purposely left on sea bed)				

# Daily Science Report

5/9/2019

Page 2

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empor)

9-May	Hours	% Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Reconfiguration	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>457.600</b>	<b>82.899</b>
Deployment	47.150	8.542
Mob Ashore	144.000	26.087
Reconfiguration	31.133	5.640
Transit to Prospect	235.317	42.630
<b>Acquisition</b>	<b>61.400</b>	<b>11.123</b>
Production Prime	61.400	11.123
<b>DownTime</b>	<b>2.217</b>	<b>0.402</b>
Source	2.217	0.402
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.586</b>
Reconfiguration	3.233	0.586
Source Reconfig	3.233	0.586
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>4.991</b>
Weather	27.550	4.991
<b>Total</b>	<b>552.000</b>	

## Basic Project Details

MGL1902_Shillington_Empor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	50 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		

Comment
Emperor Sea Mounts

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

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

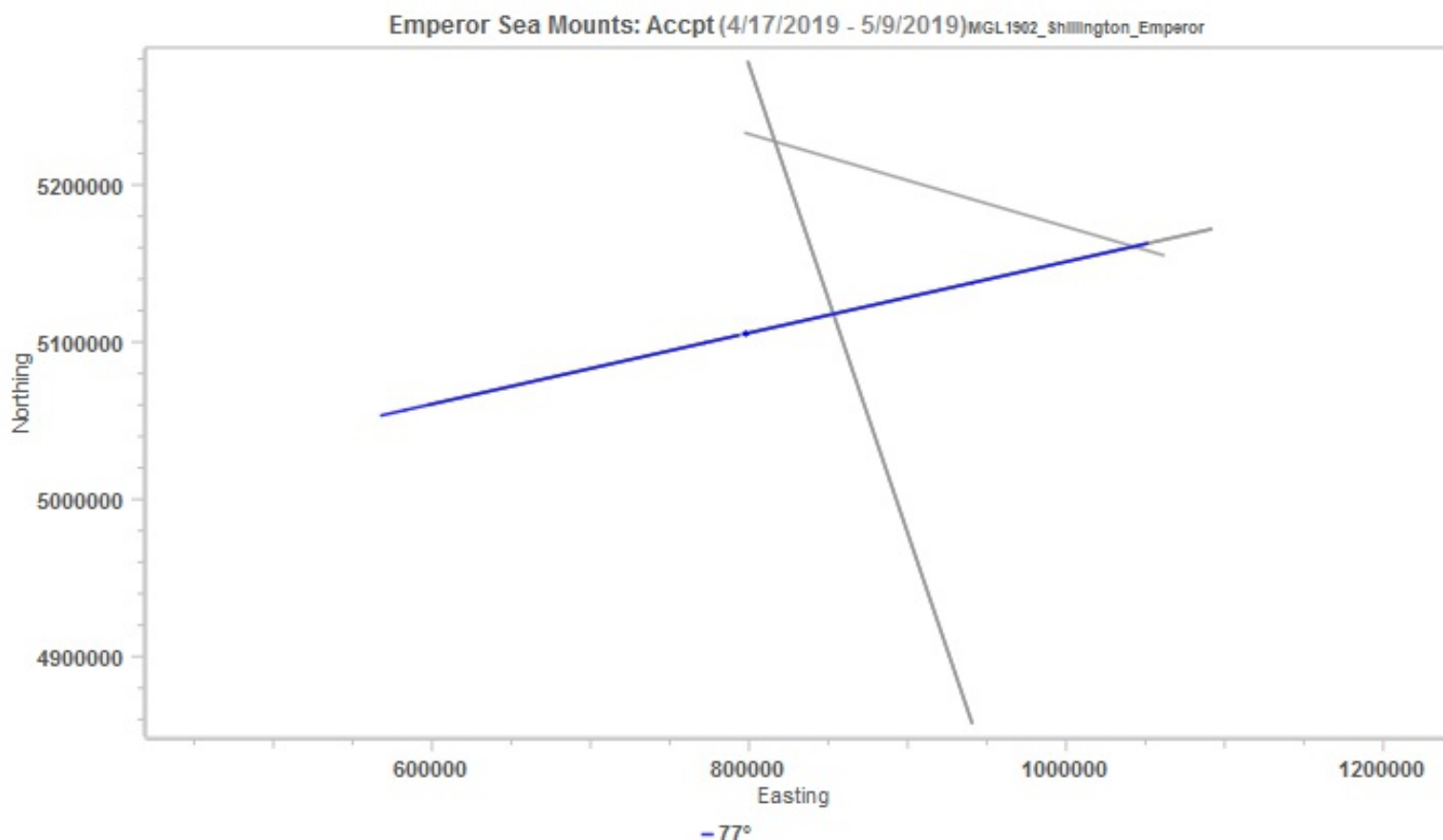
# Daily Science Report

5/9/2019

Page 3

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

Charged km	Day	Week	Month	Project
Prime	0.00	36.70	39.25	39.25
Combined	0.00	36.70	39.25	39.25



## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 09 May

### 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 09 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Thu May 9 2019 03:28p.m.

Page 3

# Daily Science Report

5/9/2019

Page 4

Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

## **PSO Staff On-board the Langseth**

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## **Science Party On-board the Langseth**

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/10/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 10 May

We recovered ten OBS's today.

Cable deployment preparations have been made.











## Daily Comment Summaries - Plan for Tomorrow

Fri 10 May

We will deploy MCS streamer and begin deploying source array. We will ballast the streamer during deployment to account for the water temp and salinity in the survey area.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

--	--	--	--	--	--	--	--	--	--

Category	Code	Start	End	Duration
 Reconfiguration	MB_RC	Fri 10. May 00:00	Fri 10. May 00:42	0.700
Recovery OBS 117 (OBS 118 purposely left on sea bed)				
 Reconfiguration	MB_RC	Fri 10. May 00:42	Fri 10. May 02:22	1.667
Recovery OBS 116				
 Reconfiguration	MB_RC	Fri 10. May 02:22	Fri 10. May 04:38	2.267
Recovery OBS 115				
 Reconfiguration	MB_RC	Fri 10. May 04:38	Fri 10. May 07:29	2.850
Recovery OBS 114				
 Reconfiguration	MB_RC	Fri 10. May 07:29	Fri 10. May 09:49	2.333
Recovery OBS 113				
 Reconfiguration	MB_RC	Fri 10. May 09:49	Fri 10. May 12:33	2.733
Recovery OBS 112				
 Reconfiguration	MB_RC	Fri 10. May 12:33	Fri 10. May 15:47	3.233
Recovery OBS 111				
 Reconfiguration	MB_RC	Fri 10. May 15:47	Fri 10. May 19:03	3.267
Recovery OBS 110				
 Reconfiguration	MB_RC	Fri 10. May 19:03	Fri 10. May 22:02	2.983
Recovery OBS 109				
 Reconfiguration	MB_RC	Fri 10. May 22:02	Fri 10. May 24:00	1.967
Recovery OBS 108				

# Daily Science Report

5/10/2019

Page 2

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

10-May	Hours	% Percent
<b>Mobilisation</b>	<b>24.000</b>	<b>100.000</b>
Reconfiguration	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>481.600</b>	<b>83.611</b>
Deployment	47.150	8.186
Mob Ashore	144.000	25.000
Reconfiguration	55.133	9.572
Transit to Prospect	235.317	40.854
<b>Acquisition</b>	<b>61.400</b>	<b>10.660</b>
Production Prime	61.400	10.660
<b>DownTime</b>	<b>2.217</b>	<b>0.385</b>
Source	2.217	0.385
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.561</b>
Reconfiguration	3.233	0.561
Source Reconfig	3.233	0.561
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>4.783</b>
Weather	27.550	4.783
<b>Total</b>	<b>576.000</b>	

## Basic Project Details

MGL1902_Shillington_Emporor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	300 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		

Comment
Emperor Sea Mounts

# Daily Science Report

5/10/2019

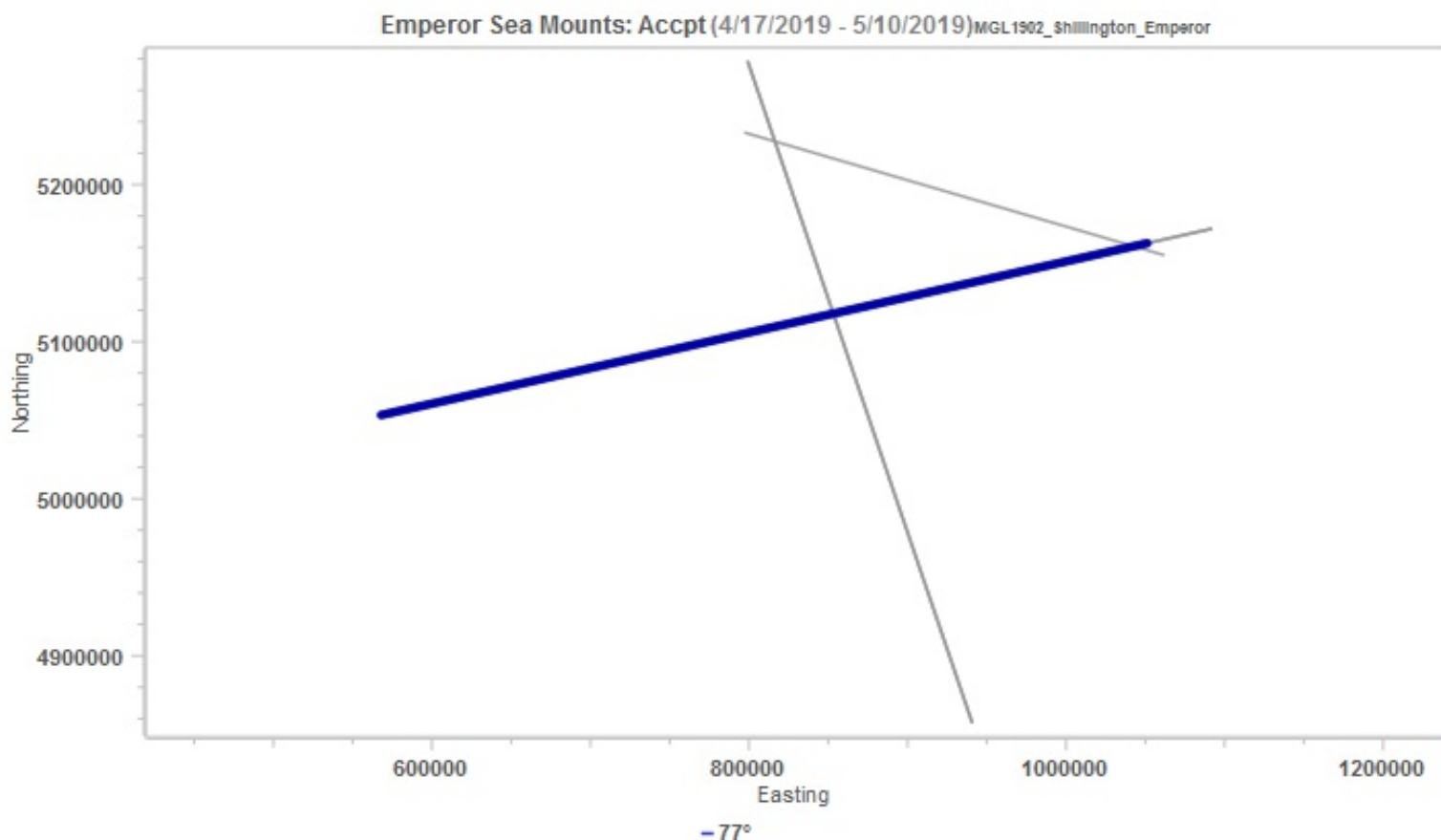
Page 3

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

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
3	01OB	77.2	899	2549	Prime	495.00	N/A	Complete	Complete
<b>Total</b>						<b>495.00</b>			

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

Charged km	Day	Week	Month	Project
Prime	0.00	220.20	235.50	235.50
<b>Combined</b>	<b>0.00</b>	<b>220.20</b>	<b>235.50</b>	<b>235.50</b>



## Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 10 May

### Navigation:

Tail-buoy prepared for deployment.

### Information Technology (IT):

No Major Issues to Report

### Acquisition (OBS):

No Major Issues to Report

### Towing and Handling (Source):

Troubleshoot electrical leakage in sub-array's #1 and #3. Normal maintenance.

### General Purpose Science:

Swapped in spare magnetometer to troubleshoot some low grade spiking in the original one.



# Daily Science Report

5/10/2019

Page 4

## Daily Comment Summaries - Personnel Onboard

Fri 10 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/11/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 11 May

Streamer fully deployed and began deploying guns.

Magnetometer, PAM deployed.












## Daily Comment Summaries - Plan for Tomorrow

Sat 11 May

Full acquisition mode.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Reconfiguration	MB_RC	Sat 11. May 00:00	Sat 11. May 00:11	0.183
Recovery OBS 108				
 Reconfiguration	MB_RC	Sat 11. May 00:11	Sat 11. May 02:20	2.150
Recovery OBS 107				
 Reconfiguration	MB_RC	Sat 11. May 02:20	Sat 11. May 04:26	2.100
Recovery OBS 106				
 Reconfiguration	MB_RC	Sat 11. May 04:26	Sat 11. May 06:30	2.067
Recovery OBS 105				
 Reconfiguration	MB_RC	Sat 11. May 06:30	Sat 11. May 08:47	2.283
Recovery OBS 104 - One more to go !!				
 Reconfiguration	MB_RC	Sat 11. May 08:47	Sat 11. May 10:53	2.100
Recovery OBS 103				
 Reconfiguration	MB_RC	Sat 11. May 10:53	Sat 11. May 11:36	0.717
Securing OBS equipment and preparing streamer deck for deployment				
 Deployment	MB_DP	Sat 11. May 11:36	Sat 11. May 12:35	0.983
Deploying tail buoy and reel 1				
 Deployment	MB_DP	Sat 11. May 12:35	Sat 11. May 16:55	4.333
transfer to reel 2 and deploy from reel 2, transfer to reel 3				
 Deployment	MB_DP	Sat 11. May 16:55	Sat 11. May 21:45	4.833
transfer to reel 3 and deploy.				
 Deployment	MB_DP	Sat 11. May 21:45	Sat 11. May 22:51	1.100
Streamer tripped power. Remove section #3 due to power problem. This fixed problem. New streamer length is 14,850 meters.				

# Daily Science Report

5/11/2019

Page 2

Category	Code	Start	End	Duration
Deployment	MB_DP	Sat 11. May 22:51	Sat 11. May 23:37	0.767
Continue deployment add RVIM and head float				
Deployment	MB_DP	Sat 11. May 23:37	Sat 11. May 24:00	0.383
Deploy magnetometer and PAM cable.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

11-May	Hours	%Percent
Mobilisation	24.000	100.000
Deployment	12.400	51.667
Reconfiguration	11.600	48.333
Day's Total	24.000	100.000

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Hours	%Percent
Mobilisation	505.600	84.267
Deployment	59.550	9.925
Mob Ashore	144.000	24.000
Reconfiguration	66.733	11.122
Transit to Prospect	235.317	39.219
Acquisition	61.400	10.233
Production Prime	61.400	10.233
DownTime	2.217	0.369
Source	2.217	0.369
Chargeable Standby	3.233	0.539
Reconfiguration	3.233	0.539
Source Reconfig	3.233	0.539
Non-Chargeable StandBy	27.550	4.592
Weather	27.550	4.592
Total	600.000	

## Basic Project Details

MGL1902_Shillington_Empedor					
General Details					
Record length:	18000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	225 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1200	Front Depth:	12 m
Tail Depth:	12 m	Length:	15000 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4

# Daily Science Report

5/11/2019

Page 3

## MGL1902\_Shillington\_Emperor

String Separation: 6 m

String length: 18 m

## Comment

Emperor Sea Mounts

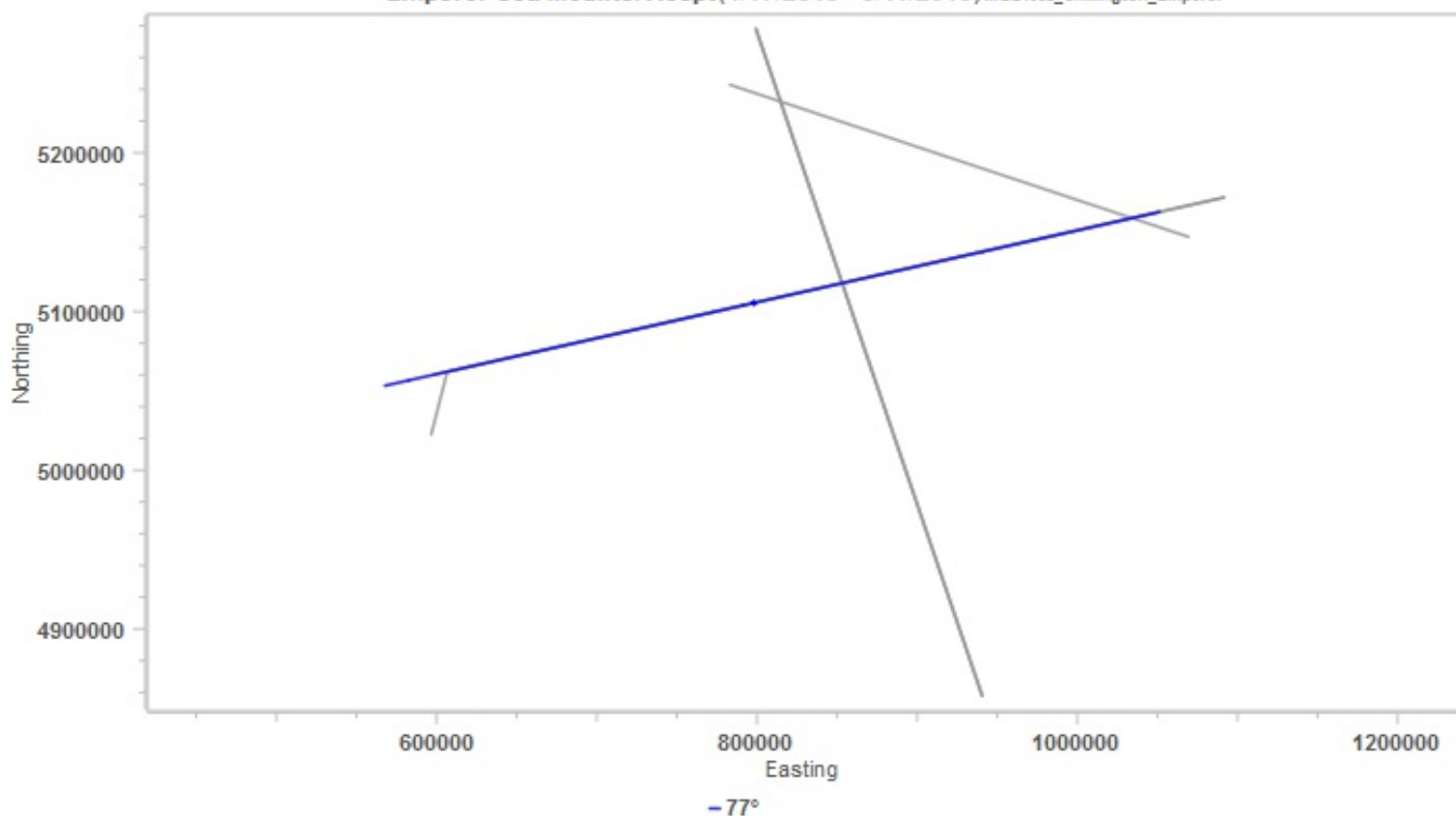
## Production Listing (Accpt km) - Prime: Sail Line, Infill: Full Fold

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

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

Accepted km	Day	Week	Month	Project
Prime	0.00	480.31	495.56	495.56
Combined	0.00	480.31	495.56	495.56

Emperor Sea Mounts: Accpt(4/17/2019 - 5/11/2019) MGL1902\_Shillington\_Emperor



## Daily Comment Summaries - Daily Comments On Status of Equipment

### Sat 11 May

#### Navigation:

Tail buoy GPS not talking. We moved several digicourse birds to the forward coils on the streamer between bird 10-5 because the aft coils weren't talking.

#### Information Technology (IT):

Problem with export data flow at SOL. Data is being written.

#### Acquisition (OBS):

SRD deployed during first turn onto LINE MGL1902 MC04

#### Towing and Handling (Source):

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat May 11 2019 06:48p.m.

Page 3

# Daily Science Report

5/11/2019

Page 4

Started first sequence without 360in3 gun on sub array #3 due to electrical leakage.

## General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Sat 11 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

# Daily Science Report

5/12/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 12 May

We completed Seq 3 and the started MGL1902MC01. We acquired data all day.

The weather has picked up a little. The streamer is towing well.









## Daily Comment Summaries - Plan for Tomorrow

Sun 12 May

We will continue to acquire data on MC01 for the next two and a half days.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Deployment	MB_DP	Sun 12. May 00:00	Sun 12. May 00:29	0.483
Deploy sub array 1				
 Deployment	MB_DP	Sun 12. May 00:29	Sun 12. May 02:40	2.183
Repair air leak to sub array 2 and fully deploy sub array 2				
 Deployment	MB_DP	Sun 12. May 02:40	Sun 12. May 02:58	0.300
Fully deployed sub array 4				
 Deployment	MB_DP	Sun 12. May 02:58	Sun 12. May 03:20	0.367
Fully deploy sub array 3				
 Deployment	MB_DP	Sun 12. May 03:20	Sun 12. May 03:41	0.350
Ramp up source				
 Deployment	MB_DP	Sun 12. May 03:41	Sun 12. May 03:45	0.067
Final checks of systems before starting line				
 Production Prime	AC_PP	Sun 12. May 03:45	Sun 12. May 09:49	6.067
Line MGL1902MC04				
 Prime Line Change	AC_PLC	Sun 12. May 09:49	Sun 12. May 09:57	0.133
Short line change to MGL1902MC01				
 Production Prime	AC_PP	Sun 12. May 09:57	Sun 12. May 24:00	14.050

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

12-May	Hours	% Percent
<b>Acquisition</b>	<b>20.250</b>	<b>84.375</b>
Prime Line Change	0.133	0.556

# Daily Science Report

5/12/2019

Page 2

12-May	Hours	% Percent
Production Prime	20.117	83.819
<b>Mobilisation</b>	<b>3.750</b>	<b>15.625</b>
Deployment	3.750	15.625
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>81.627</b>
Deployment	63.300	10.144
Mob Ashore	144.000	23.077
Reconfiguration	66.733	10.694
Transit to Prospect	235.317	37.711
<b>Acquisition</b>	<b>81.650</b>	<b>13.085</b>
Prime Line Change	0.133	0.021
Production Prime	81.517	13.064
<b>DownTime</b>	<b>2.217</b>	<b>0.355</b>
Source	2.217	0.355
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.518</b>
Reconfiguration	3.233	0.518
Source Reconfig	3.233	0.518
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>4.415</b>
Weather	27.550	4.415
<b>Total</b>	<b>624.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

# Daily Science Report

5/12/2019

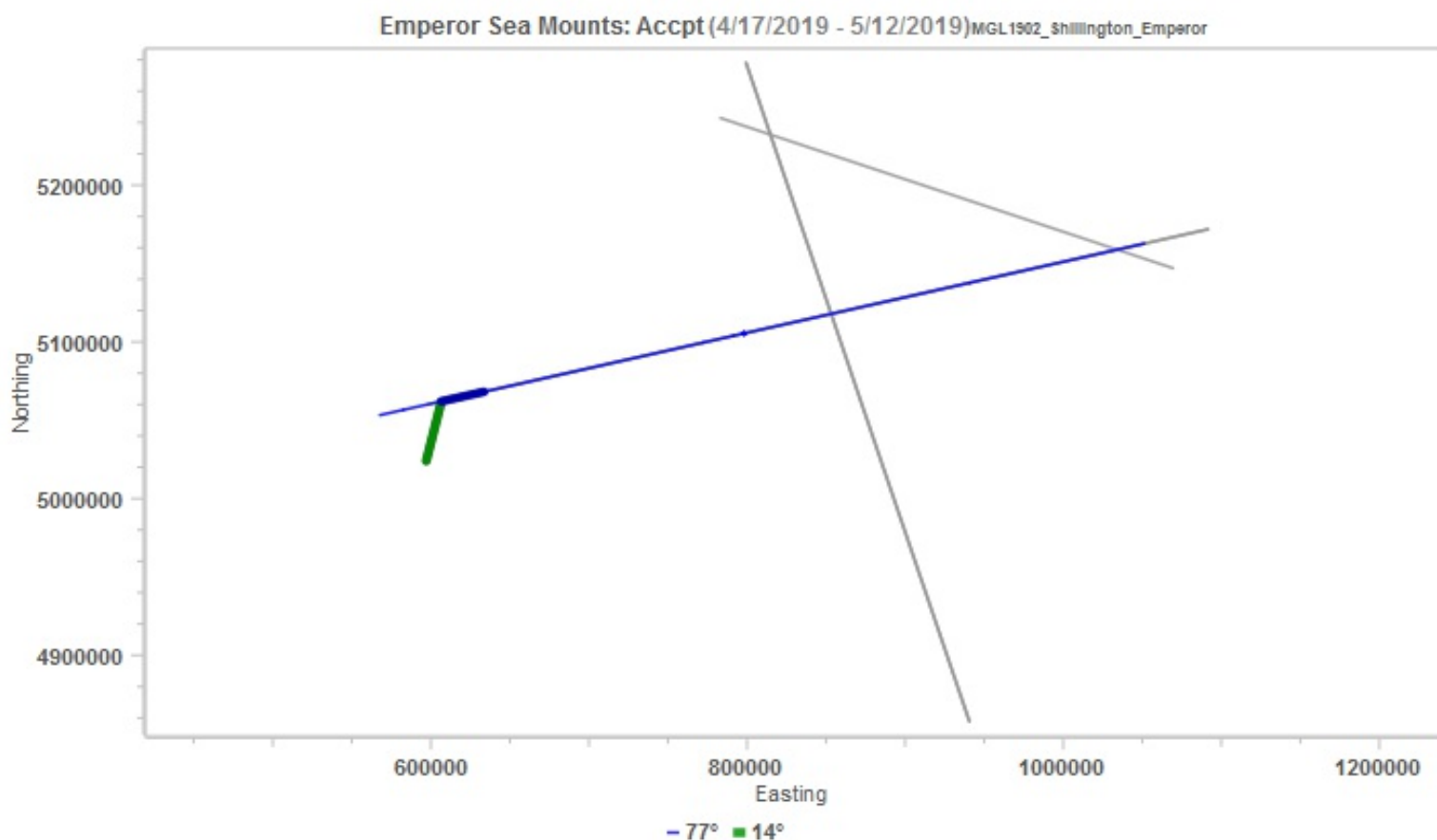
Page 3

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
3	L04MC	14.2	1027	1641	Prime	38.38	3.416	Complete	Complete
4	L01MC	77.2	1014	1452	Prime	27.38	1.052	Part	Midnight
<b>Total</b>						<b>65.75</b>			

## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	65.75	546.06	561.31	561.31
<b>Combined</b>	<b>65.75</b>	<b>546.06</b>	<b>561.31</b>	<b>561.31</b>



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 12 May

### Navigation:

Tail buoy GPS not talking.

### Information Technology (IT):

No Major Issues to Report

### Acquisition (OBS):

No Major Issues to Report

### Towing and Handling (Source):

Two 360 in3 are disabled. Source Volume is 6240 in3

### General Purpose Science:

No Major Issues to Report



# Daily Science Report

5/12/2019

Page 4

## Daily Comment Summaries - Personnel Onboard

### Sun 12 May

#### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

#### PSO Staff On-board the Langseth


Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

#### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
 First Aid Case	lal_FAC	Sun 12. May 19:00	
HSE - First Aid Case			
Contractor Incident/Report No: pinch/crush injury to left middle finger			

Daily Total Category	Code	Count
 Toolbox Meetings	Mtgs_Tbox	3
5/12/2019		
Meetings for deploying source Meeting for deploying head float Meeting for troubleshooting rGPS antenna with a new antenna		

# Daily Science Report

5/13/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 13 May

Acquired data all day on Seq #4 with very favorable weather and seas.

We had one of the activated SRD's come off of the streamer. The noise on the streamer has improved dramatically.


## Daily Comment Summaries - Plan for Tomorrow

Mon 13 May

We will acquire data on this line throughout the day.

We have made all preparations to pick up sub-array's #1 and #4 for repairs and maintenance immediately after the line is finished.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Mon 13. May 00:00	Mon 13. May 24:00	24.000
SOL Seq 4 Line:L01MC Block=Emperor Sea Mounts FGSP=1543 FCSP=N/AHdg=77.2° Prime MSP Seq 4 Line:L01MC Block=Emperor Sea Mounts LGSP=4468 LCSP=4468 Midnight				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

13-May	Hours	% Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>78.603</b>
Deployment	63.300	9.769
Mob Ashore	144.000	22.222
Reconfiguration	66.733	10.298
Transit to Prospect	235.317	36.314
<b>Acquisition</b>	<b>105.650</b>	<b>16.304</b>
Prime Line Change	0.133	0.021
Production Prime	105.517	16.283
<b>DownTime</b>	<b>2.217</b>	<b>0.342</b>

# Daily Science Report

5/13/2019

Page 2

Category	Hours	%Percent
Source	2.217	0.342
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.499</b>
Reconfiguration	3.233	0.499
Source Reconfig	3.233	0.499
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>4.252</b>
Weather	27.550	4.252
<b>Total</b>	<b>648.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
4	L01MC	77.2	1543	4468	Prime	182.88	3.063	Part	Midnight
<b>Total</b>						<b>182.88</b>			

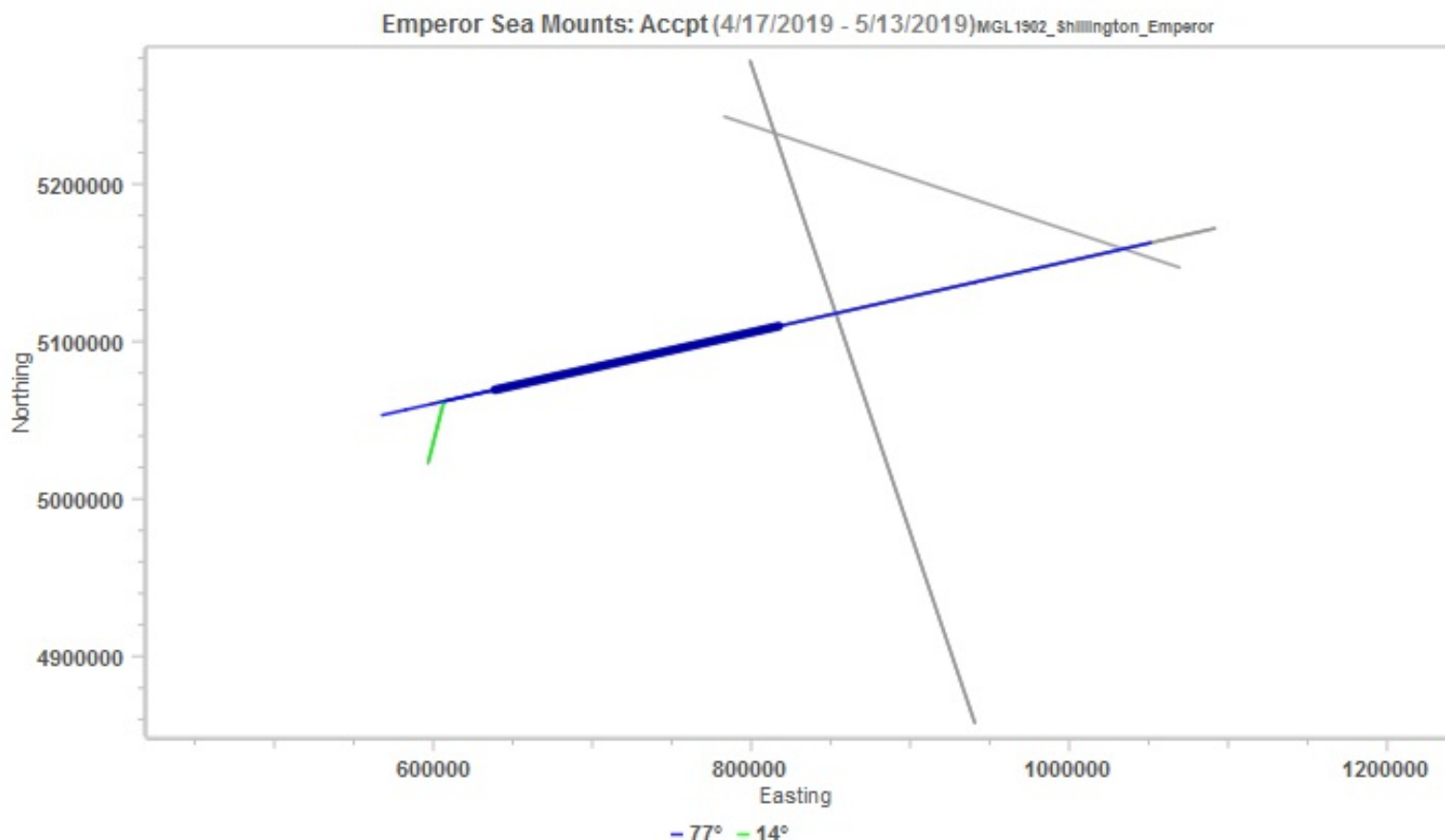
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	182.88	182.88	749.81	749.81
<b>Combined</b>	<b>182.88</b>	<b>182.88</b>	<b>749.81</b>	<b>749.81</b>

# Daily Science Report

5/13/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 13 May

### Navigation:

Tail buoy not talking.

### Information Technology (IT):

No Major Issues to Report

### Acquisition (OBS):

We had two SRD's activated during the deployment on bird's 54, 52. The SRD on bird 54 came free. The data looks better and our control is good in this area.

### Towing and Handling (Source):

Two 360 in3 disabled.

### General Purpose Science:

We have deployed nine XBT's on this sequence while crossing the Emperor Jimmu Seamount at the center of the survey.

## Daily Comment Summaries - Personnel Onboard

Mon 13 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Mon May 13 2019 03:58p.m.

Page 3

# Daily Science Report

5/13/2019

Page 4

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chile  
Fortin, Will - LDEO  
Tsekhnistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category		Code	Count
<div><div></div>Toolbox Meetings</div>	Mtgs_Tbox		1
5/13/2019			
Discuss source array recovery timing and personnel.			

# Daily Science Report

5/14/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Tue 14 May

We will complete Seq #4 shortly after the day change. We're picking up the source array for maintenance during the long line change to Seq #5.


The second activated SRD came free from the streamer allowing the streamer to drop back down to 12 meters at the tail.

## Daily Comment Summaries - Plan for Tomorrow

Tue 14 May

We will redeploy the source arrays and begin acquiring MCS data on Seq #5.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Tue 14. May 00:00	Tue 14. May 24:00	24.000
SOL Seq 4 Line:L01MC Block=Emperor Sea Mounts FGSP=5470 FCSP=N/AHdg=77.2° Prime MSP Seq 4 Line:L01MC Block=Emperor Sea Mounts LGSP=8526 LCSP=8526 Midnight				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

14-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>75.796</b>
Deployment	63.300	9.420
Mob Ashore	144.000	21.429
Reconfiguration	66.733	9.931
Transit to Prospect	235.317	35.017
<b>Acquisition</b>	<b>129.650</b>	<b>19.293</b>
Prime Line Change	0.133	0.020
Production Prime	129.517	19.273
<b>DownTime</b>	<b>2.217</b>	<b>0.330</b>
Source	2.217	0.330

# Daily Science Report

5/14/2019

Page 2

Category	Hours	%Percent
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.481</b>
Reconfiguration	3.233	0.481
Source Reconfig	3.233	0.481
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>4.100</b>
Weather	27.550	4.100
<b>Total</b>	<b>672.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
4	L01MC	77.2	5470	8526	Prime	191.06	4.086	Part	Midnight
<b>Total</b>						<b>191.06</b>			

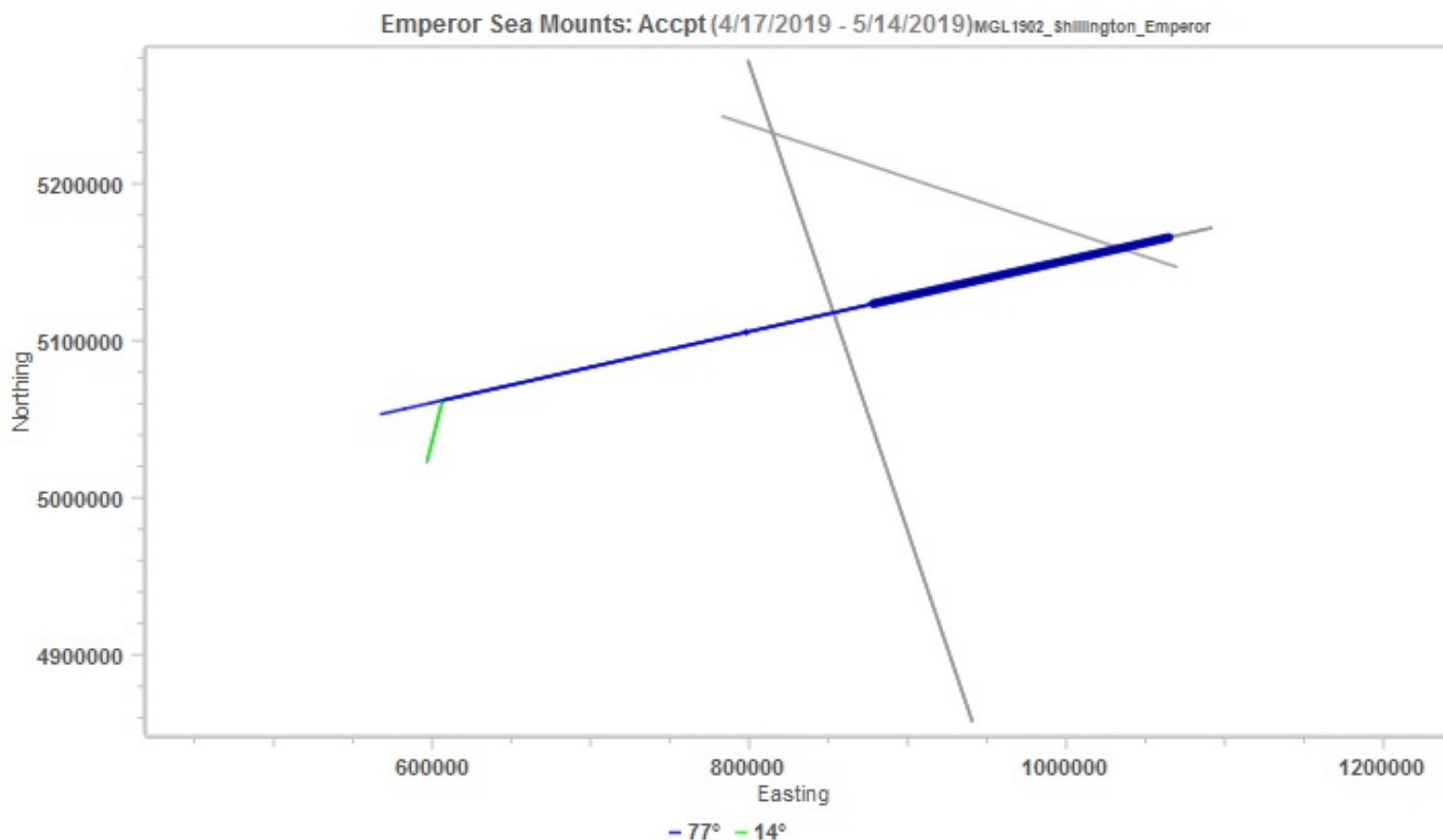
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	191.06	373.94	1003.44	1003.44
<b>Combined</b>	<b>191.06</b>	<b>373.94</b>	<b>1003.44</b>	<b>1003.44</b>

# Daily Science Report

5/14/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 14 May

### Navigation:

No Major Issues to Report

### Information Technology (IT):

No Major Issues to Report

### Acquisition (OBS):

Both activated SRD's are free from the streamer.

### Towing and Handling (Source):

Picking up source array's #1, #4 for maintenance.

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Tue 14 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue May 14 2019 02:52p.m.

Page 3



# Daily Science Report

5/14/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chile  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
 Fire Drill	DrIs_Fi	Tue 14. May 20:20	Tue 14. May 20:52
HSE - Fire Drill			
 Abandon Ship Drill	DrIs_AS	Tue 14. May 20:52	Tue 14. May 21:10
HSE - Abandon Ship Drill			

Daily Total Category	Code	Count
 Toolbox Meetings	Mtgs_Tbox	2
5/14/2019		
Toolbox meeting for retrieving source array. Toolbox meeting for deploying source array.		

# Daily Science Report

5/15/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 15 May

We completed MGL1902 MC01 at 03:09 UTC. We picked up source sub-array's #4, #3, #1 for maintenance and repairs during the long line change.

We had a gun start to auto-fire at the end of MC01 so we finished this sequence with only two sub-array's firing so we could address the repairs immediately. (Gun 4-5 was the culprit).

We are currently acquiring data on MGL1902 MC03.

Weather and seas are favorable.




## Daily Comment Summaries - Plan for Tomorrow

Wed 15 May

We will acquire data on MGL1902 MC03 for the entire day.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Production Prime	AC_PP	Wed 15. May 00:00	Wed 15. May 03:59	3.983
SOL Seq 4 Line:L01MC Block=Emperor Sea Mounts FGSP=8527 Hdg=77.2° Prime EOL Seq 4 Line:L01MC Block=Emperor Sea Mounts LGSP=9026 Complete				
 Prime Extended L/C	AC_PXL	Wed 15. May 03:59	Wed 15. May 10:09	6.167
Extended Prime line change.				
 Production Prime	AC_PP	Wed 15. May 10:09	Wed 15. May 24:00	13.850
SOL Seq 5 Line:L03MC Block=Emperor Sea Mounts FGSP=1099 FCSP=N/AHdg=288.5° Prime MSP Seq 5 Line:L03MC Block=Emperor Sea Mounts LGSP=2558 LCSP=2558 Midnight				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

15-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Prime Extended L/C	6.167	25.694
Production Prime	17.833	74.306
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

# Daily Science Report

5/15/2019

Page 2

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>73.182</b>
Deployment	63.300	9.095
Mob Ashore	144.000	20.690
Reconfiguration	66.733	9.588
Transit to Prospect	235.317	33.810
<b>Acquisition</b>	<b>153.650</b>	<b>22.076</b>
Prime Extended L/C	6.167	0.886
Prime Line Change	0.133	0.019
Production Prime	147.350	21.171
<b>DownTime</b>	<b>2.217</b>	<b>0.318</b>
Source	2.217	0.318
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.465</b>
Reconfiguration	3.233	0.465
Source Reconfig	3.233	0.465
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.958</b>
Weather	27.550	3.958
<b>Total</b>	<b>696.000</b>	

## Basic Project Details

MGL1902_Shillington_Empedor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
4	L01MC	77.2	8527	9026	Prime	31.25	4.095	Complete	Complete
5	L03MC	288.5	1099	2558	Prime	91.19	3.555	Part	Midnight
<b>Total</b>						<b>122.44</b>			

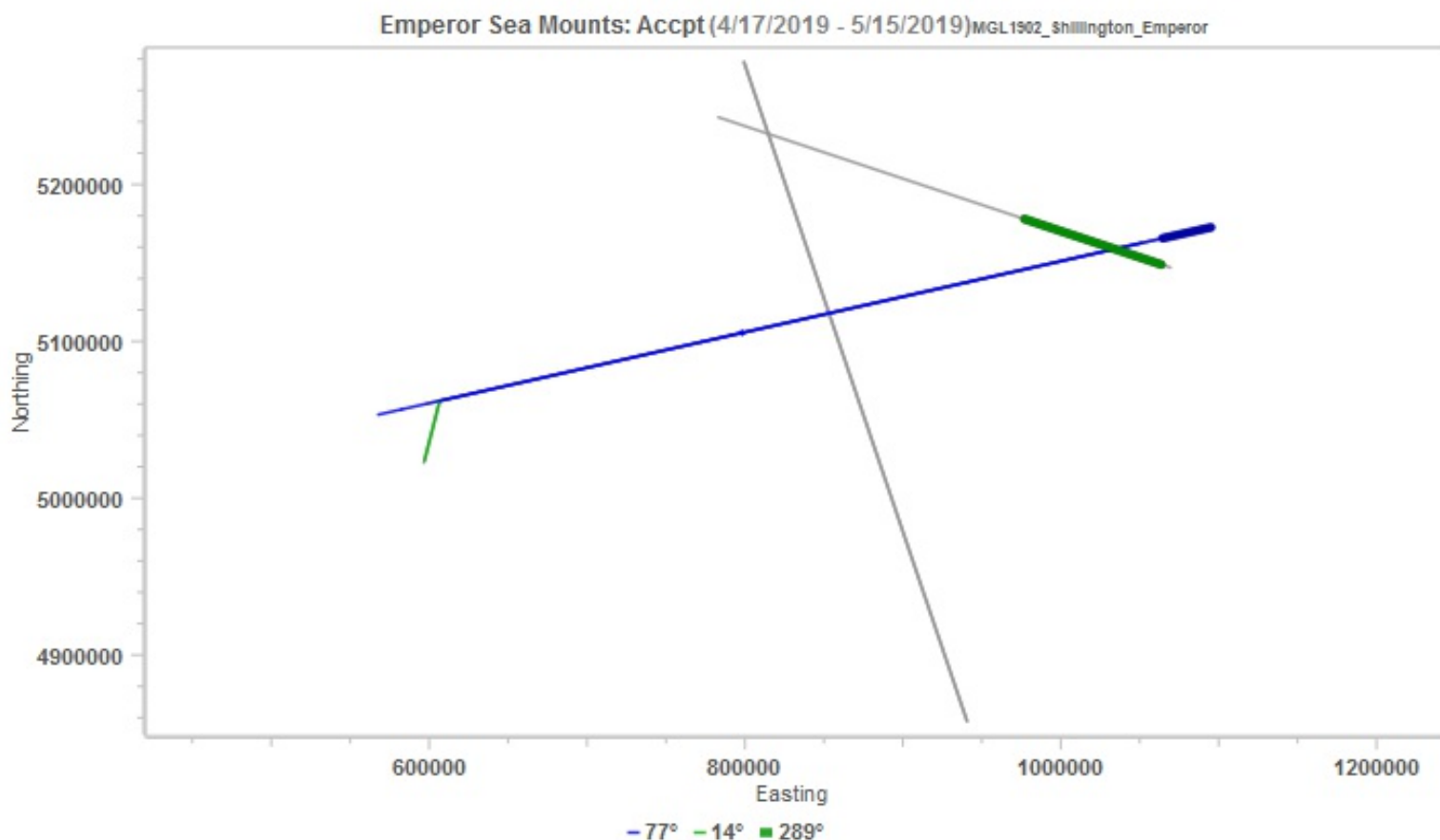
# Daily Science Report

5/15/2019

Page 3

## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	122.44	496.38	1125.88	1125.88
<b>Combined</b>	<b>122.44</b>	<b>496.38</b>	<b>1125.88</b>	<b>1125.88</b>



## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 15 May

### 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):

Sub-array #1 has a 360 ci gun inoperable. Source Volume is 6420 ci

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Wed 15 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Wed May 15 2019 02:39p.m.

Page 3

# Daily Science Report

5/15/2019

Page 4

Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

## PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div></div> Toolbox Meetings	Mtgs_Tbox	3	
5/15/2019			
Toolbox for retrieving source arrays. Toolbox for re-deploying source array with large crab angle and close head floats. Toolbox for securing the decks, vents and hatches.			

# Daily Science Report

5/16/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 16 May

We completed MGL1902 MC03 at 22:48 UTC and then did an inside turn to hot-start MGL1902-MC02. This shortened the north-south strike line and eliminated the long outside turn for line change.

We started MGL1902-MC02 at 23:53 and will complete the MCS line in approximately two days. Saturday afternoon local time.

## Daily Comment Summaries - Plan for Tomorrow

Thu 16 May




We will acquire data on MGL1902- MC02 all day.

We will make all preparations to retrieve the entire streamer on Saturday afternoon, including the reconfiguration for next mission.

Weather remains favorable for all MCS work.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Production Prime	AC_PP	Thu 16. May 00:00	Thu 16. May 22:48	22.800
SOL Seq 5 Line:L03MC Block=Emperor Sea Mounts FGSP=2559 Hdg=288.5° Prime EOL Seq 5 Line:L03MC Block=Emperor Sea Mounts LGSP=5227 Complete				
 Prime Line Change	AC_PLC	Thu 16. May 22:48	Thu 16. May 23:53	1.083
Prime line change.				
 Production Prime	AC_PP	Thu 16. May 23:53	Thu 16. May 24:00	0.117
SOL Seq 6 Line:L02MC Block=Emperor Sea Mounts FGSP=6159 FCSP=N/AHdg=161.4° Prime MSP Seq 6 Line:L02MC Block=Emperor Sea Mounts LGSP=6143 LCSP=6143 Midnight				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

16-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Prime Line Change	1.083	4.514
Production Prime	22.917	95.486
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

# Daily Science Report

5/16/2019

Page 2

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>70.743</b>
Deployment	63.300	8.792
Mob Ashore	144.000	20.000
Reconfiguration	66.733	9.269
Transit to Prospect	235.317	32.683
<b>Acquisition</b>	<b>177.650</b>	<b>24.674</b>
Prime Extended L/C	6.167	0.856
Prime Line Change	1.217	0.169
Production Prime	170.267	23.648
<b>DownTime</b>	<b>2.217</b>	<b>0.308</b>
Source	2.217	0.308
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.449</b>
Reconfiguration	3.233	0.449
Source Reconfig	3.233	0.449
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.826</b>
Weather	27.550	3.826
<b>Total</b>	<b>720.000</b>	

## Basic Project Details

MGL1902_Shillington_Empedor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
5	L03MC	288.5	2559	5227	Prime	166.81	3.801	Complete	Complete
6	L02MC	161.4	6159	6143	Prime	1.00	4.628	Part	Midnight
<b>Total</b>						<b>167.81</b>			

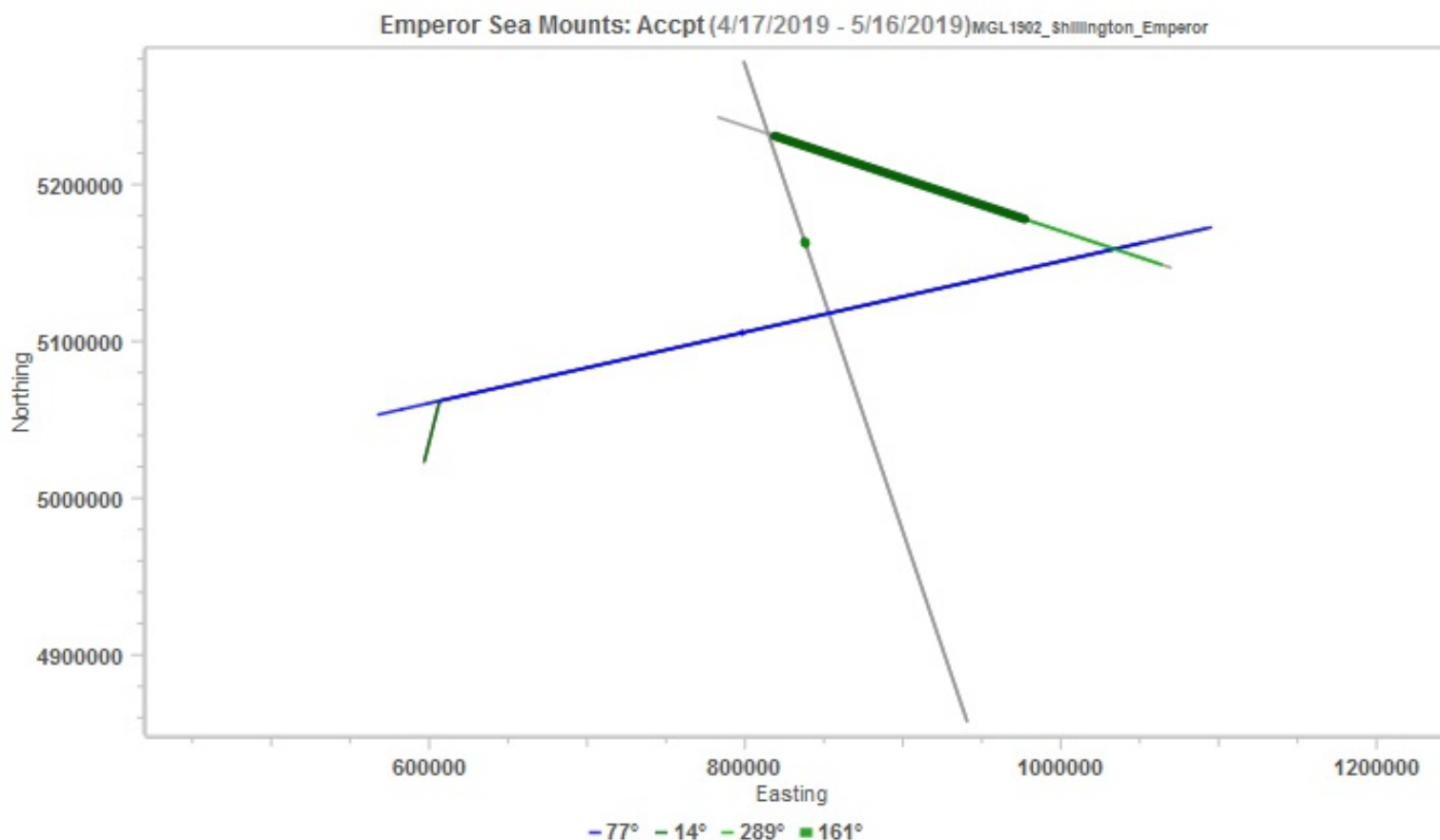
# Daily Science Report

5/16/2019

Page 3

## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	167.81	664.19	1293.69	1293.69
<b>Combined</b>	<b>167.81</b>	<b>664.19</b>	<b>1293.69</b>	<b>1293.69</b>



## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 16 May

### 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 16 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Thu May 16 2019 06:16p.m.

Page 3



# Daily Science Report

5/16/2019

Page 4

Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

## PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div></div> Toolbox Meetings	Mtgs_Tbox	2	
5/16/2019			
Toolbox meeting to discuss moving sections from reel #4 onto the spares reel. Need 4 people, 3 remotes. Toolbox meeting to discuss swapping out gun trolleys.			

# Daily Science Report

5/17/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 17 May

We acquired data all day on MGL1902 MC02.

We made preparations to begin retrieving MCS and for deploying OBS's.

## Daily Comment Summaries - Plan for Tomorrow

Fri 17 May

We will acquire data on MGL1902 MC02 through out the day. We will begin picking up the gear shortly afterwards.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Fri 17. May 00:00	Fri 17. May 24:00	24.000
SOL Seq 6 Line:L02MC Block=Emperor Sea Mounts FGSP=1952 FCSP=N/AHdg=161.4° Prime MSP Seq 6 Line:L02MC Block=Emperor Sea Mounts LGSP=4926 LCSP=4926 Midnight				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

17-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>68.461</b>
Deployment	63.300	8.508
Mob Ashore	144.000	19.355
Reconfiguration	66.733	8.970
Transit to Prospect	235.317	31.629
<b>Acquisition</b>	<b>201.650</b>	<b>27.103</b>
Prime Extended L/C	6.167	0.829
Prime Line Change	1.217	0.164
Production Prime	194.267	26.111
<b>DownTime</b>	<b>2.217</b>	<b>0.298</b>

# Daily Science Report

5/17/2019

Page 2

Category	Hours	%Percent
Source	2.217	0.298
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.435</b>
Reconfiguration	3.233	0.435
Source Reconfig	3.233	0.435
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.703</b>
Weather	27.550	3.703
<b>Total</b>	<b>744.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
6	L02MC	161.4	1952	4926	Prime	185.94	4.185	Part	Midnight
<b>Total</b>						<b>185.94</b>			

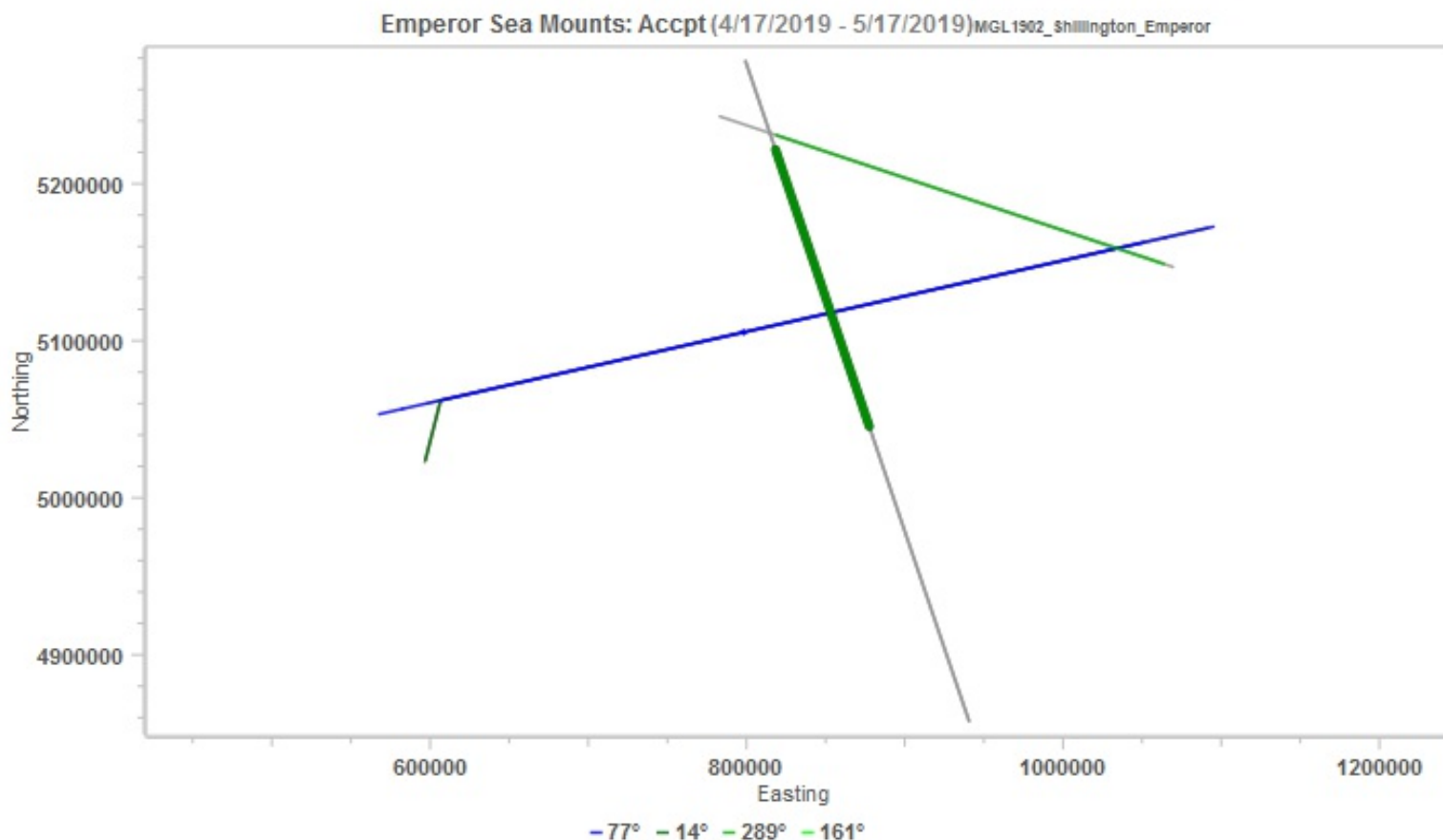
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	185.94	850.12	1479.62	1479.62
<b>Combined</b>	<b>185.94</b>	<b>850.12</b>	<b>1479.62</b>	<b>1479.62</b>

# Daily Science Report

5/17/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 17 May

### 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 17 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Fri May 17 2019 07:19p.m.

Page 3

# Daily Science Report

5/17/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div></div> Toolbox Meetings	Mtgs_Tbox	3	
5/17/2019			
Toolbox meeting to discuss moving sections from reel to reel. Toolbox meeting to discuss damaged stairway. Toolbox meeting to discuss moving sections across main deck. Toolbox meeting to discuss BioWave deck-lead.			

# Daily Science Report

5/18/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 18 May

We acquired data on MGL1902 MC02 all day.

## Daily Comment Summaries - Plan for Tomorrow

Sat 18 May

We will complete the final MCS line for this mission and begin retrieving the source array at approximately 4PM local time. MCS will come onboard shortly afterwards.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Sat 18. May 00:00	Sat 18. May 24:00	24.000
SOL Seq 6 Line:L02MC Block=Emperor Sea Mounts FGSP=4927 FCSP=N/AHdg=161.4° Prime MSP Seq 6 Line:L02MC Block=Emperor Sea Mounts LGSP=7820 LCSP=7820 Midnight				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

18-May	Hours	%Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>509.350</b>	<b>66.322</b>
Deployment	63.300	8.242
Mob Ashore	144.000	18.750
Reconfiguration	66.733	8.689
Transit to Prospect	235.317	30.640
<b>Acquisition</b>	<b>225.650</b>	<b>29.382</b>
Prime Extended L/C	6.167	0.803
Prime Line Change	1.217	0.158
Production Prime	218.267	28.420
<b>DownTime</b>	<b>2.217</b>	<b>0.289</b>
Source	2.217	0.289
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.421</b>

# Daily Science Report

5/18/2019

Page 2

Category	Hours	%Percent
Reconfiguration	3.233	0.421
Source Reconfig	3.233	0.421
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.587</b>
Weather	27.550	3.587
<b>Total</b>	<b>768.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Acpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
6	L02MC	161.4	4927	7820	Prime	180.88	4.128	Part	Midnight
<b>Total</b>						<b>180.88</b>			

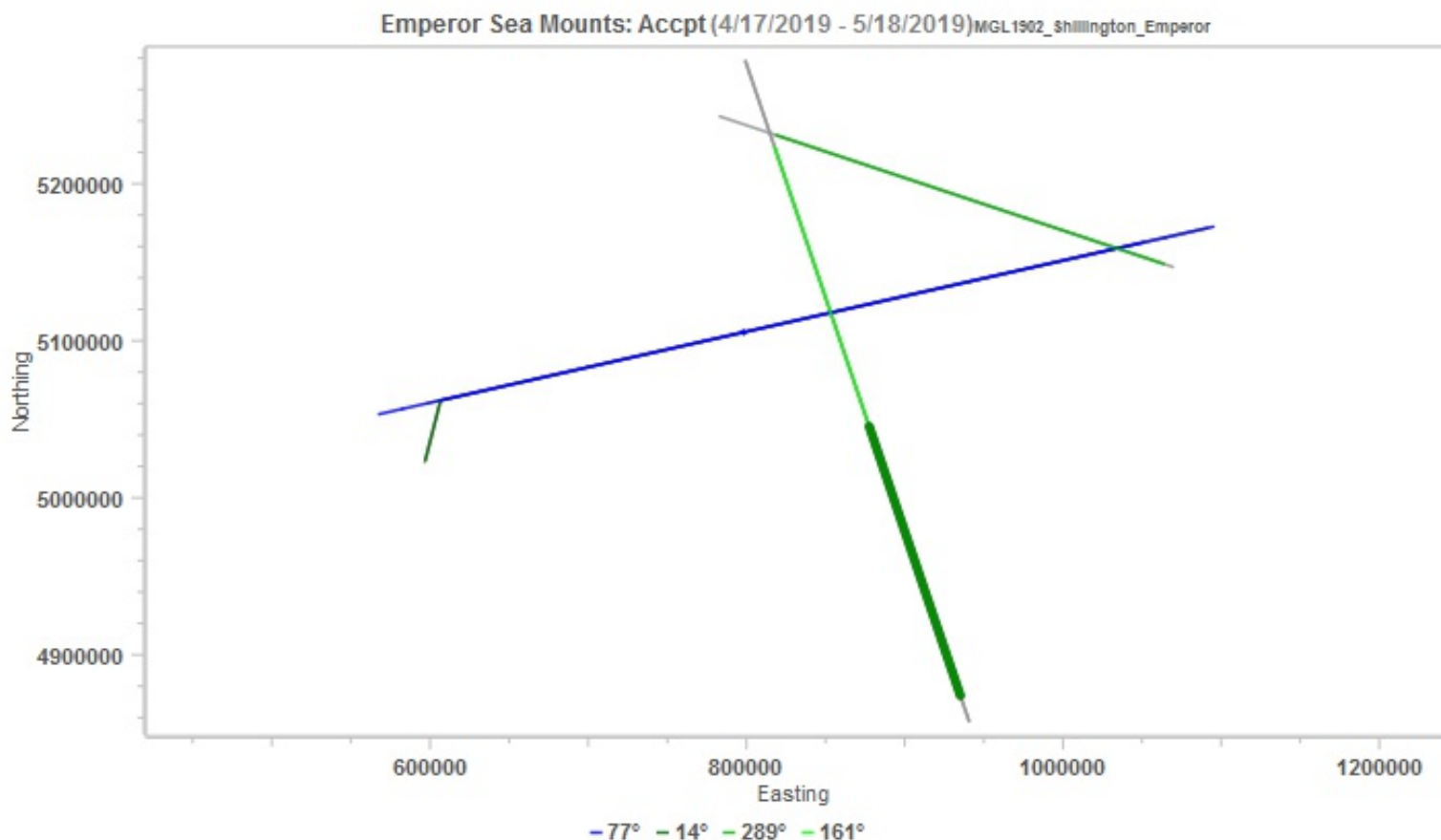
## Production Totals (Acpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	180.88	1031.00	1660.50	1660.50
<b>Combined</b>	<b>180.88</b>	<b>1031.00</b>	<b>1660.50</b>	<b>1660.50</b>

# Daily Science Report

5/18/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 18 May

### 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 18 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat May 18 2019 02:37p.m.

Page 3



# Daily Science Report

5/18/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div><div></div> Toolbox Meetings</div>	Mtgs_Tbox	2	
5/18/2019			
Toolbox Meeting. Discussed risks and roles to transfer tail buoy onto main deck. Toolbox meeting to discuss source retrieval and the sea state and course direction.			

# Daily Science Report

5/19/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 19 May

MCS was onboard 12:16 UTC. It took approximately ten hours to pick up the gear.

We started deploying OBS's at 13:27 UTC. We have eleven OBS's deployed by 24:00 UTC.

## Daily Comment Summaries - Plan for Tomorrow

Sun 19 May







We will continue deploying OBS's for most of the day. Estimated last OBS deployment is at approximately 17:00 UTC Monday.

We will then deploy guns and start acquiring data for the rest of the day.

Weather is becoming marginal.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Production Prime	AC_PP	Sun 19. May 00:00	Sun 19. May 02:05	2.083
SOL Seq 6 Line:L02MC Block=Emperor Sea Mounts FGSP=4927 FCSP=N/AHdg=161.4° Prime MSP Seq 6 Line:L02MC Block=Emperor Sea Mounts LGSP=7820 LCSP=7820 Midnight				
 Reconfiguration	MB_RC	Sun 19. May 02:05	Sun 19. May 05:00	2.917
Recovering gun strings 1-4, PAM, and Magnetometer				
 Reconfiguration	MB_RC	Sun 19. May 05:00	Sun 19. May 12:16	7.267
Recovering streamer Tail buoy recovered and streamer deck secured 12:16				
 Deployment	MB_DP	Sun 19. May 12:16	Sun 19. May 13:29	1.217
Deploy OBS 228				
 Deployment	MB_DP	Sun 19. May 13:29	Sun 19. May 14:56	1.450
Deploy OBS 227 - took some time troubleshooting OBS				
 Deployment	MB_DP	Sun 19. May 14:56	Sun 19. May 15:49	0.883
Deploy OBS 226				
 Deployment	MB_DP	Sun 19. May 15:49	Sun 19. May 16:40	0.850
Deploy OBS 225				
 Deployment	MB_DP	Sun 19. May 16:40	Sun 19. May 17:51	1.183
Deploy OBS 224				

# Daily Science Report

5/19/2019

Page 2

Category	Code	Start	End	Duration
 Deployment	MB_DP	Sun 19. May 17:51	Sun 19. May 18:45	0.900
Deployed OBS 223				
 Deployment	MB_DP	Sun 19. May 18:45	Sun 19. May 19:39	0.900
Deployed OBS 222				
 Deployment	MB_DP	Sun 19. May 19:39	Sun 19. May 20:36	0.950
Deployed OBS 221				
 Deployment	MB_DP	Sun 19. May 20:36	Sun 19. May 21:50	1.233
Deployed OBS 220				
 Deployment	MB_DP	Sun 19. May 21:50	Sun 19. May 22:51	1.017
Deployed OBS 219				
 Deployment	MB_DP	Sun 19. May 22:51	Sun 19. May 23:44	0.883
Deployed OBS 218				
 Deployment	MB_DP	Sun 19. May 23:44	Sun 19. May 24:00	0.267
Deployed OBS 217				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

19-May	Hours	%Percent
<b>Acquisition</b>	<b>2.083</b>	<b>8.681</b>
Production Prime	2.083	8.681
<b>Mobilisation</b>	<b>21.917</b>	<b>91.319</b>
Deployment	11.733	48.889
Reconfiguration	10.183	42.431
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>531.267</b>	<b>67.079</b>
Deployment	75.033	9.474
Mob Ashore	144.000	18.182
Reconfiguration	76.917	9.712
Transit to Prospect	235.317	29.712
<b>Acquisition</b>	<b>227.733</b>	<b>28.754</b>
Prime Extended L/C	6.167	0.779
Prime Line Change	1.217	0.154
Production Prime	220.350	27.822
<b>DownTime</b>	<b>2.217</b>	<b>0.280</b>
Source	2.217	0.280
<b>Chargeable Standby</b>	<b>3.233</b>	<b>0.408</b>
Reconfiguration	3.233	0.408
Source Reconfig	3.233	0.408
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.479</b>

# Daily Science Report

5/19/2019

Page 3

Category	Hours	%Percent
Weather	27.550	3.479
<b>Total</b>	<b>792.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
6	L02MC	161.4	7821	8084	Prime	16.50	4.134	Complete	Complete
<b>Total</b>						<b>16.50</b>			

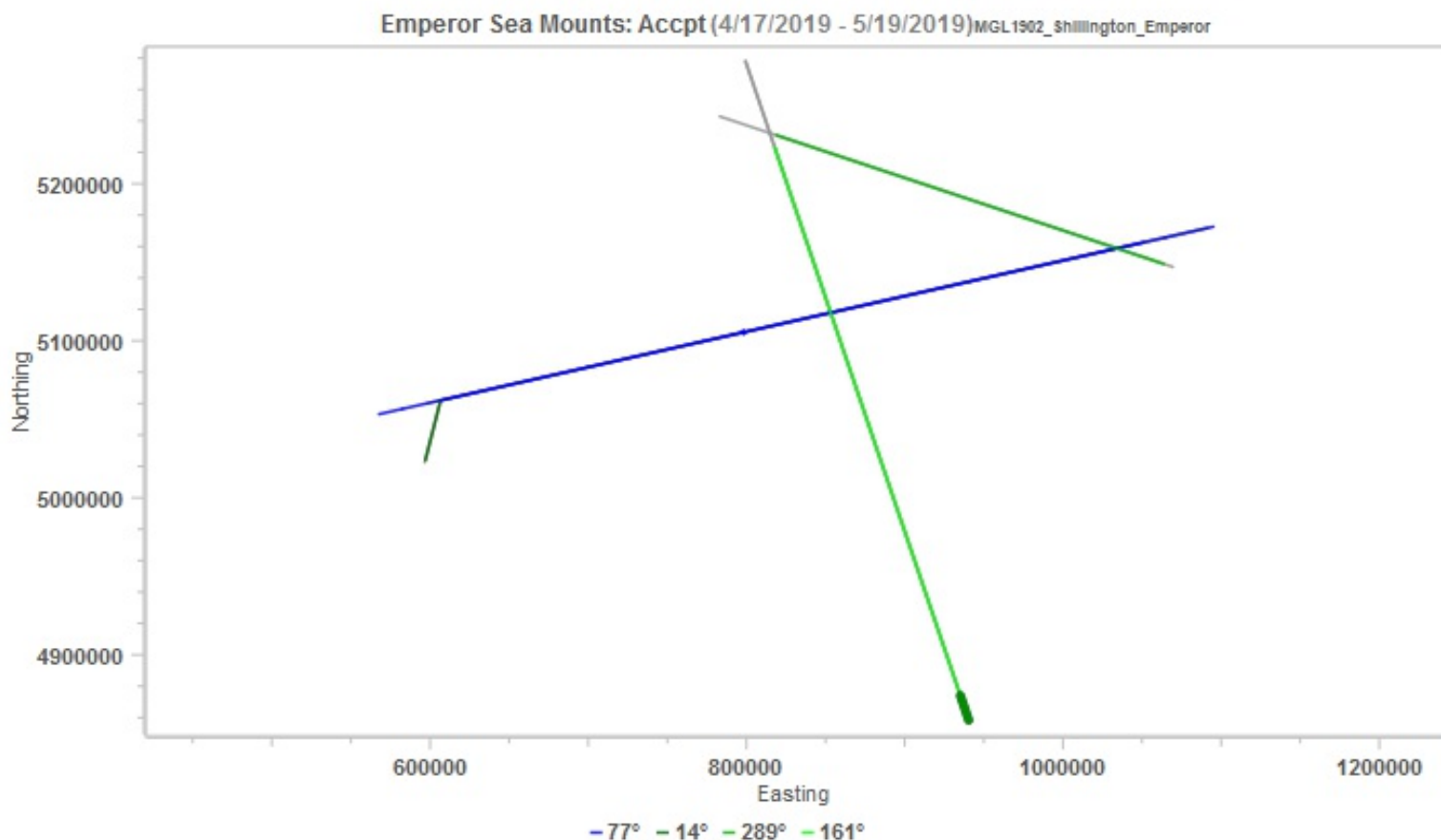
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	16.50	1047.50	1677.00	1677.00
<b>Combined</b>	<b>16.50</b>	<b>1047.50</b>	<b>1677.00</b>	<b>1677.00</b>

# Daily Science Report

5/19/2019

Page 4



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 19 May

### 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 19 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sun May 19 2019 02:01p.m.

Page 4

# Daily Science Report

5/19/2019

Page 5

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chile  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div><div></div> Toolbox Meetings</div>	Mtgs_Tbox	3	
5/19/2019			
Toolbox to discuss OBS deployments Toolbox to discuss source array modifications Toolbox meeting bird removal and handling w/students			

# Daily Science Report

5/20/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 20 May

All OBS's deployed at 22:19 UTC.

We stopped deploying OBS's for a few hours last night due to the adverse sea state.

We turned into the seas and started deploying the guns at approximately 22:27 UTC; All guns deployed at 23:54. Soft-start completed shortly after the day change.

## Daily Comment Summaries - Plan for Tomorrow

Mon 20 May

We will acquire data all day on MGL1902 OB02. Final sequence!

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)



Category	Code	Start	End	Duration
 Deployment	MB_DP	Mon 20. May 00:00	Mon 20. May 00:34	0.567
Deployed OBS 217				
 Deployment	MB_DP	Mon 20. May 00:34	Mon 20. May 02:09	1.583
Deployed OBS 216				
 Deployment	MB_DP	Mon 20. May 02:09	Mon 20. May 03:40	1.517
Deployed OBS 215				
 Deployment	MB_DP	Mon 20. May 03:40	Mon 20. May 05:14	1.567
Deployed OBS 214				
 Deployment	MB_DP	Mon 20. May 05:14	Mon 20. May 06:13	0.983
Deployed OBS 213				
 Deployment	MB_DP	Mon 20. May 06:13	Mon 20. May 07:16	1.050
Deployed OBS 212				
 Deployment	MB_DP	Mon 20. May 07:16	Mon 20. May 08:21	1.083
Deployed OBS 211				
 Deployment	MB_DP	Mon 20. May 08:21	Mon 20. May 10:25	2.067
Deploying OBS 210				
 Weather	SB_WX	Mon 20. May 10:25	Mon 20. May 13:10	2.750
Chargeable standby due to weather.				
 Deployment	MB_DP	Mon 20. May 13:10	Mon 20. May 14:04	0.900

# Daily Science Report

5/20/2019

Page 2

Category	Code	Start	End	Duration
Deploy OBS 209				
Deployment	MB_DP	Mon 20. May 14:04	Mon 20. May 15:05	1.017
Deploy OBS 208				
Deployment	MB_DP	Mon 20. May 15:05	Mon 20. May 16:01	0.933
Deploy OBS 207				
Deployment	MB_DP	Mon 20. May 16:01	Mon 20. May 17:00	0.983
Deploy OBS 206				
Deployment	MB_DP	Mon 20. May 17:00	Mon 20. May 17:58	0.967
Deploy OBS 205				
Deployment	MB_DP	Mon 20. May 17:58	Mon 20. May 19:05	1.117
Deploy OBS 204				
Deployment	MB_DP	Mon 20. May 19:05	Mon 20. May 20:03	0.967
Deploy OBS 203				
Deployment	MB_DP	Mon 20. May 20:03	Mon 20. May 21:02	0.983
Deployed OBS 202				
Deployment	MB_DP	Mon 20. May 21:02	Mon 20. May 22:19	1.283
Deployed OBS 201				
Deployment	MB_DP	Mon 20. May 22:19	Mon 20. May 23:57	1.633
Deploying PAM, Magnetometer and Gunstrings				
Deployment	MB_DP	Mon 20. May 23:57	Mon 20. May 24:00	0.050
Source Ramp-Up				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empire)

20-May	Hours	%Percent
Chargeable Standby	2.750	11.458
Weather	2.750	11.458
Mobilisation	21.250	88.542
Deployment	21.250	88.542
Day's Total	24.000	100.000

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empire)

Category	Hours	%Percent
Mobilisation	552.517	67.710
Deployment	96.283	11.799
Mob Ashore	144.000	17.647
Reconfiguration	76.917	9.426
Transit to Prospect	235.317	28.838
Acquisition	227.733	27.908
Prime Extended L/C	6.167	0.756
Prime Line Change	1.217	0.149
Production Prime	220.350	27.004



# Daily Science Report

5/20/2019

Page 3

Category	Hours	%Percent
<b>DownTime</b>	<b>2.217</b>	<b>0.272</b>
Source	2.217	0.272
<b>Chargeable Standby</b>	<b>5.983</b>	<b>0.733</b>
Reconfiguration	3.233	0.396
Source Reconfig	3.233	0.396
Weather	2.750	0.337
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.376</b>
Weather	27.550	3.376
<b>Total</b>	<b>816.000</b>	

## Basic Project Details

<b>MGL1902_Shillington_Emperor</b>					
<b>General Details</b>					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
<b>Cable Details</b>					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
<b>Source Details</b>					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
<b>Comment</b>					
Emperor Sea Mounts					

## Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

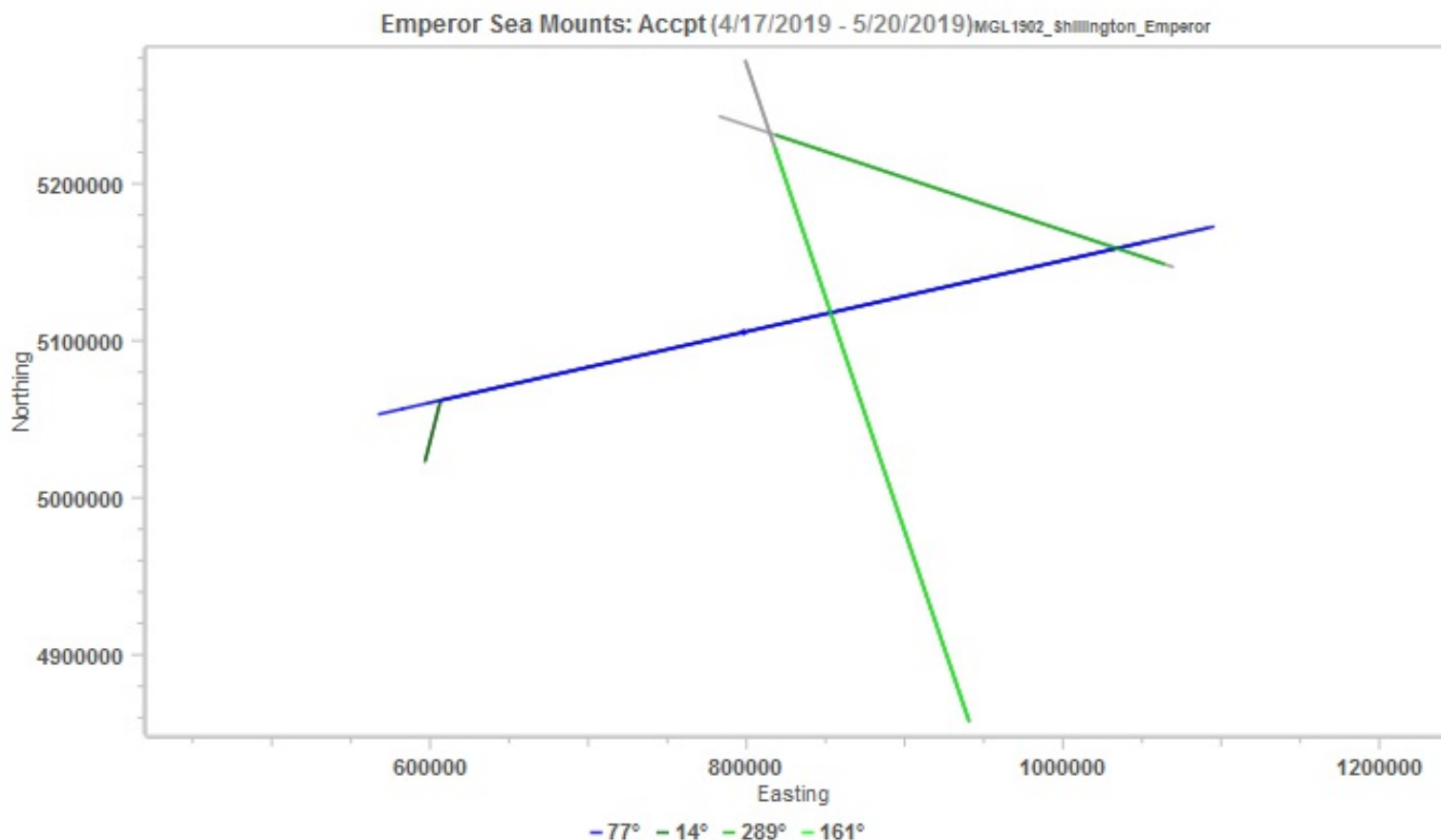
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	1677.00	1677.00
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>1677.00</b>	<b>1677.00</b>

# Daily Science Report

5/20/2019

Page 4



## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 20 May

### 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 20 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Mon May 20 2019 02:59p.m.

Page 4

# Daily Science Report

5/20/2019

Page 5

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

5/21/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Tue 21 May




We transited for a few hours to the SOL after deploying the guns. We then acquired data for the rest of the day on line MGL1902-OB02.

## Daily Comment Summaries - Plan for Tomorrow

Tue 21 May

We will continue to shoot on the final sequence, Line MGL1902-OB02.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Deployment	MB_DP	Tue 21. May 00:00	Tue 21. May 00:17	0.283
Source Ramp-Up				
 Transit	SB_TRT	Tue 21. May 00:17	Tue 21. May 03:38	3.350
Chargeable to start of line				
 Production Prime	AC_PP	Tue 21. May 03:38	Tue 21. May 24:00	20.367
SOL Seq 7 Line:L02OB Block=Emperor Sea Mounts FGSP=950 FCSP=N/AHdg=161.4° Prime MSP Seq 7 Line:L02OB Block=Emperor Sea Mounts LGSP=3343 LCSP=3343 Midnight Midnight shot point				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

21-May	Hours	%Percent
<b>Acquisition</b>	<b>20.367</b>	<b>84.861</b>
Production Prime	20.367	84.861
<b>Chargeable Standby</b>	<b>3.350</b>	<b>13.958</b>
Transit	3.350	13.958
<b>Mobilisation</b>	<b>0.283</b>	<b>1.181</b>
Deployment	0.283	1.181
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>65.810</b>
Deployment	96.567	11.496

# Daily Science Report

5/21/2019

Page 2

Category	Hours	%Percent
Mob Ashore	144.000	17.143
Reconfiguration	76.917	9.157
Transit to Prospect	235.317	28.014
<b>Acquisition</b>	<b>248.100</b>	<b>29.536</b>
Prime Extended L/C	6.167	0.734
Prime Line Change	1.217	0.145
Production Prime	240.717	28.657
<b>DownTime</b>	<b>2.217</b>	<b>0.264</b>
Source	2.217	0.264
<b>Chargeable Standby</b>	<b>9.333</b>	<b>1.111</b>
Reconfiguration	3.233	0.385
Source Reconfig	3.233	0.385
Transit	3.350	0.399
Weather	2.750	0.327
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.280</b>
Weather	27.550	3.280
<b>Total</b>	<b>840.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
7	L02OB	161.4	950	3343	Prime	149.56	3.965	Part	Midnight
<b>Total</b>						<b>149.56</b>			

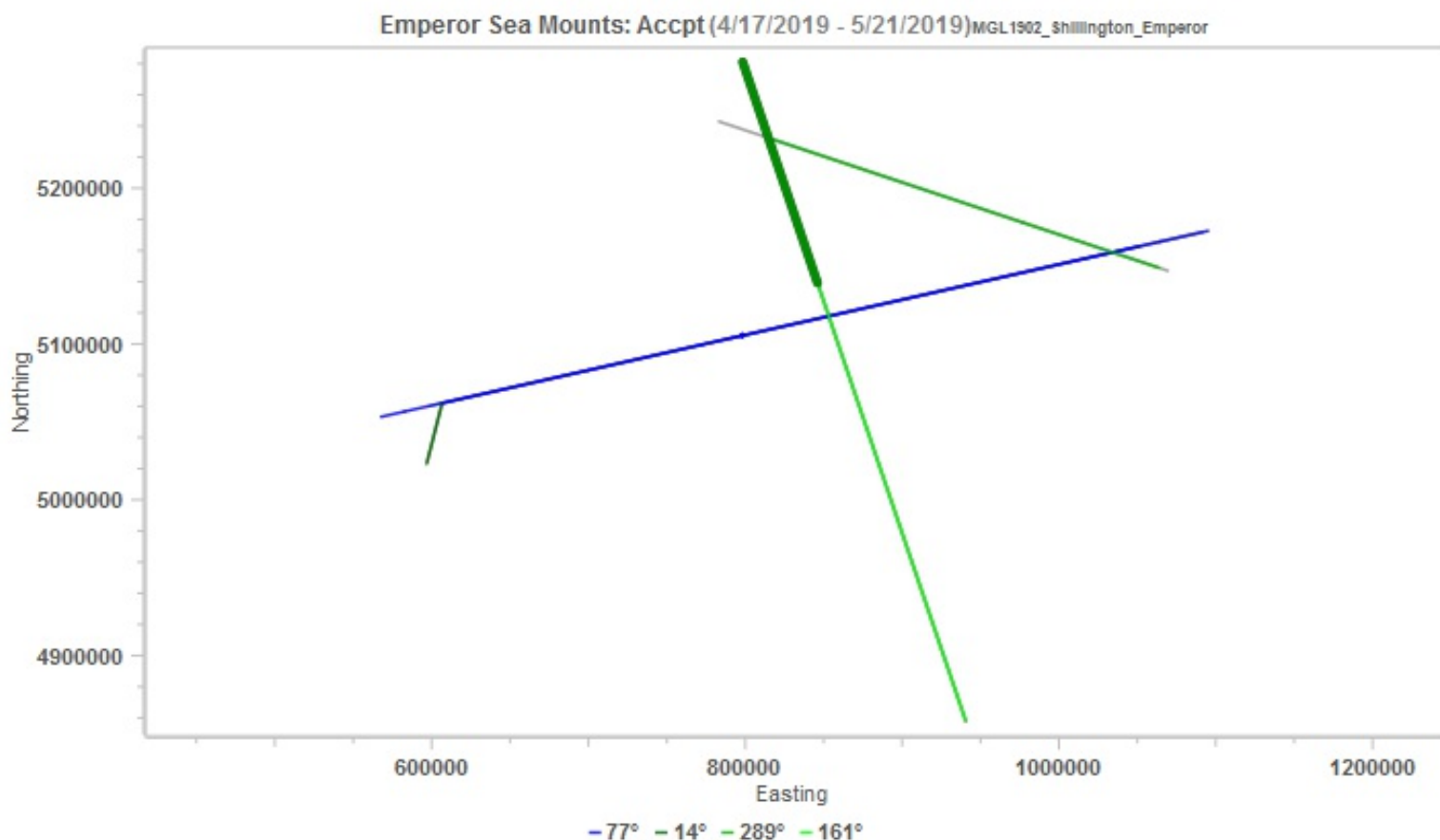
# Daily Science Report

5/21/2019

Page 3

## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	149.56	149.56	1826.56	1826.56
Combined	149.56	149.56	1826.56	1826.56



## Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 21 May

### 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):

Some coms issues with sub-array #1. Guns are firing, just occasional coms errors being reported.

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Tue 21 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue May 21 2019 02:19p.m.

Page 3

# Daily Science Report

5/21/2019

Page 4

Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

## PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div></div> Toolbox Meetings	Mtgs_Tbox	2	
5/21/2019			
Toolbox meeting to discuss rough weather source deployment. Toolbox meeting to discuss securing decks and work areas.			

# Daily Science Report

5/22/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 22 May

We acquired data on line MGL1902-MC02 all day.

Preparations have been made to recover all of the gear.


## Daily Comment Summaries - Plan for Tomorrow

Wed 22 May

We will complete this line earlier than originally planned due to roughening seas on the 25th. This will provide time to recover the OBS's prior to this weather period.

We will start recovering PAM, magnetometer and gun-strings at approximately 08:30 UTC (10:30 pm local time). OBS recovery will begin immediately after the guns are onboard.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Production Prime	AC_PP	Wed 22. May 00:00	Wed 22. May 24:00	24.000
SOL Seq 7 Line:L02OB Block=Emperor Sea Mounts FGSP=3344 FCSP=N/AHdg=161.4° Prime MSP Seq 7 Line:L02OB Block=Emperor Sea Mounts LGSP=6172 LCSP=6172 Midnight Midnight shot point				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

22-May	Hours	% Percent
<b>Acquisition</b>	<b>24.000</b>	<b>100.000</b>
Production Prime	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>63.981</b>
Deployment	96.567	11.177
Mob Ashore	144.000	16.667
Reconfiguration	76.917	8.902
Transit to Prospect	235.317	27.236
<b>Acquisition</b>	<b>272.100</b>	<b>31.493</b>
Prime Extended L/C	6.167	0.714
Prime Line Change	1.217	0.141



# Daily Science Report

5/22/2019

Page 2

Category	Hours	%Percent
Production Prime	264.717	30.639
<b>DownTime</b>	<b>2.217</b>	<b>0.257</b>
Source	2.217	0.257
<b>Chargeable Standby</b>	<b>9.333</b>	<b>1.080</b>
Reconfiguration	3.233	0.374
Source Reconfig	3.233	0.374
Transit	3.350	0.388
Weather	2.750	0.318
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.189</b>
Weather	27.550	3.189
<b>Total</b>	<b>864.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
7	L02OB	161.4	3344	6172	Prime	176.81	3.972	Part	Midnight
<b>Total</b>						<b>176.81</b>			

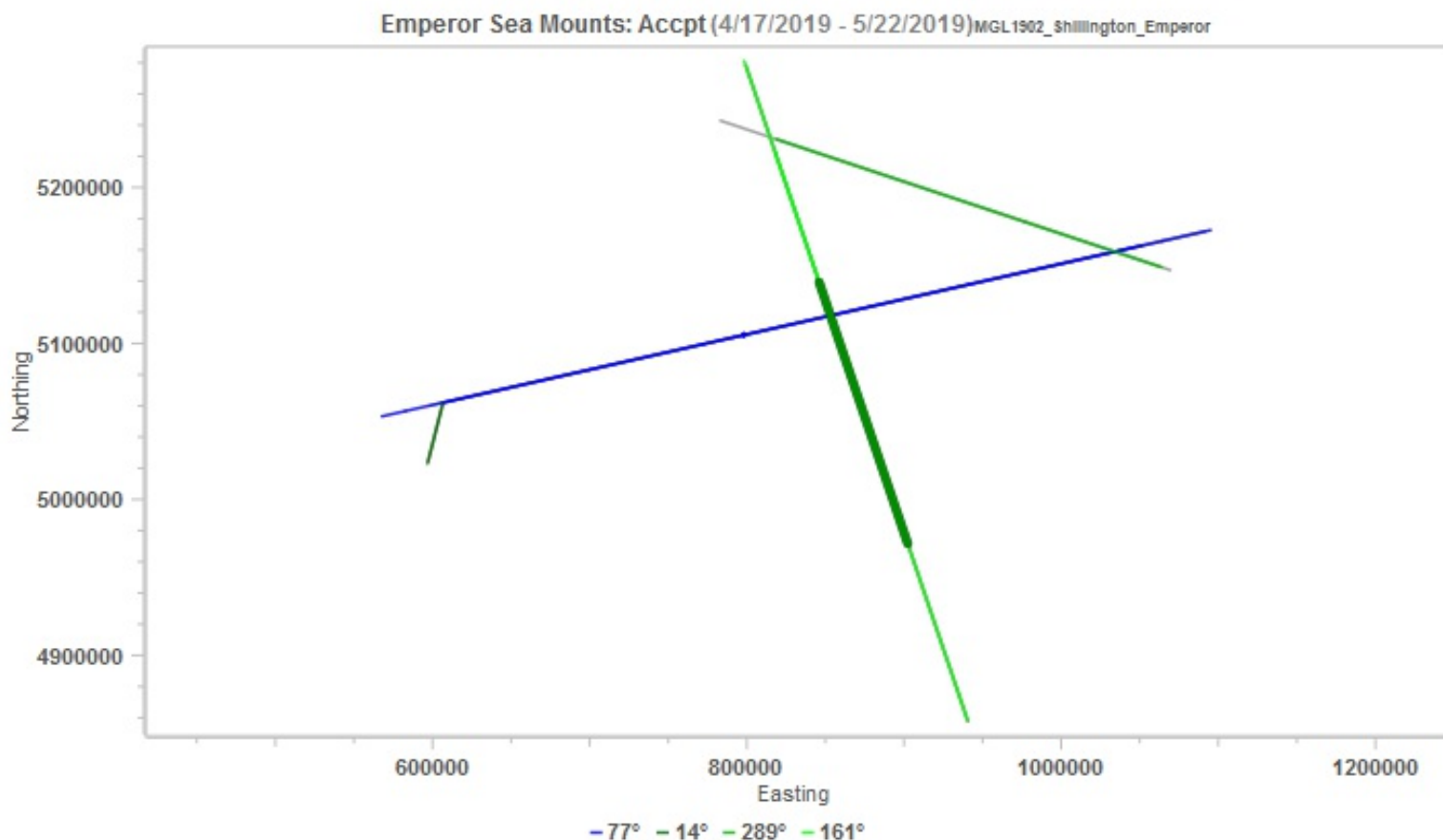
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	176.81	326.38	2003.38	2003.38
<b>Combined</b>	<b>176.81</b>	<b>326.38</b>	<b>2003.38</b>	<b>2003.38</b>

# Daily Science Report

5/22/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 22 May

### 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):

We are having some coms errors on gunstring #1. QC function only.

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Wed 22 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Wed May 22 2019 02:44p.m.

Page 3

# Daily Science Report

5/22/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div><div></div> Toolbox Meetings</div>	Mtgs_Tbox	1	
5/22/2019			
Toolbox meeting to discuss rough wx on deck.			

# Daily Science Report

5/23/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 23 May

We finished the acquisition portion of the mission and picked up all of the guns. We are currently recovering all of the OBS's. We have ten out of twenty eight onboard, so far. (2:20 UTC)

The weather is perfect for speedy and safe OBS recovery's.

## Daily Comment Summaries - Plan for Tomorrow









Thu 23 May

We will continue recovering OBS's all day.

Weather will deteriorate throughout the day.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Empress)



Category	Code	Start	End	Duration
 Production Prime	AC_PP	Thu 23. May 00:00	Thu 23. May 08:53	8.883
SOL Seq 7 Line:L02OB Block=Emperor Sea Mounts FGSP=3344 FCSP=N/AHdg=161.4° Prime MSP Seq 7 Line:L02OB Block=Emperor Sea Mounts LGSP=6172 LCSP=6172 Midnight Midnight shot point				
 Recovery	DM_RC	Thu 23. May 08:53	Thu 23. May 10:58	2.083
Recovering gun strings, PAM, and Magnetometer				
 Recovery	DM_RC	Thu 23. May 10:58	Thu 23. May 12:33	1.583
Recovering OBS 228				
 Recovery	DM_RC	Thu 23. May 12:33	Thu 23. May 14:38	2.083
Recovering OBS 227				
 Recovery	DM_RC	Thu 23. May 14:38	Thu 23. May 15:54	1.267
Recovering OBS 226				
 Recovery	DM_RC	Thu 23. May 15:54	Thu 23. May 18:00	2.100
Recover OBS 225				
 Recovery	DM_RC	Thu 23. May 18:00	Thu 23. May 19:23	1.383
Recover OBS 224				
 Recovery	DM_RC	Thu 23. May 19:23	Thu 23. May 20:47	1.400
Recover OBS 223				
 Recovery	DM_RC	Thu 23. May 20:47	Thu 23. May 22:00	1.217

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Thu May 23 2019 04:28p.m.

Page 1

# Daily Science Report

5/23/2019

Page 2

Category	Code	Start	End	Duration
Recover OBS 222				
 Recovery	DM_RC	Thu 23. May 22:00	Thu 23. May 23:28	1.467
Recover OBS 221				
 Recovery	DM_RC	Thu 23. May 23:28	Thu 23. May 24:00	0.533
Recover OBS 220				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

23-May	Hours	%Percent
<b>Acquisition</b>	<b>8.883</b>	<b>37.014</b>
Production Prime	8.883	37.014
<b>Demobilisation</b>	<b>15.117</b>	<b>62.986</b>
Recovery	15.117	62.986
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>62.252</b>
Deployment	96.567	10.875
Mob Ashore	144.000	16.216
Reconfiguration	76.917	8.662
Transit to Prospect	235.317	26.500
<b>Acquisition</b>	<b>280.983</b>	<b>31.642</b>
Prime Extended L/C	6.167	0.694
Prime Line Change	1.217	0.137
Production Prime	273.600	30.811
<b>Demobilisation</b>	<b>15.117</b>	<b>1.702</b>
Recovery	15.117	1.702
<b>DownTime</b>	<b>2.217</b>	<b>0.250</b>
Source	2.217	0.250
<b>Chargeable Standby</b>	<b>9.333</b>	<b>1.051</b>
Reconfiguration	3.233	0.364
Source Reconfig	3.233	0.364
Transit	3.350	0.377
Weather	2.750	0.310
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.102</b>
Weather	27.550	3.102
<b>Total</b>	<b>888.000</b>	

# Daily Science Report

5/23/2019

Page 3

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km by interval) - Full Fold

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
7	L02OB	161.4	6173	7344	Prime	73.25	4.052	Complete	Complete
Total						73.25			

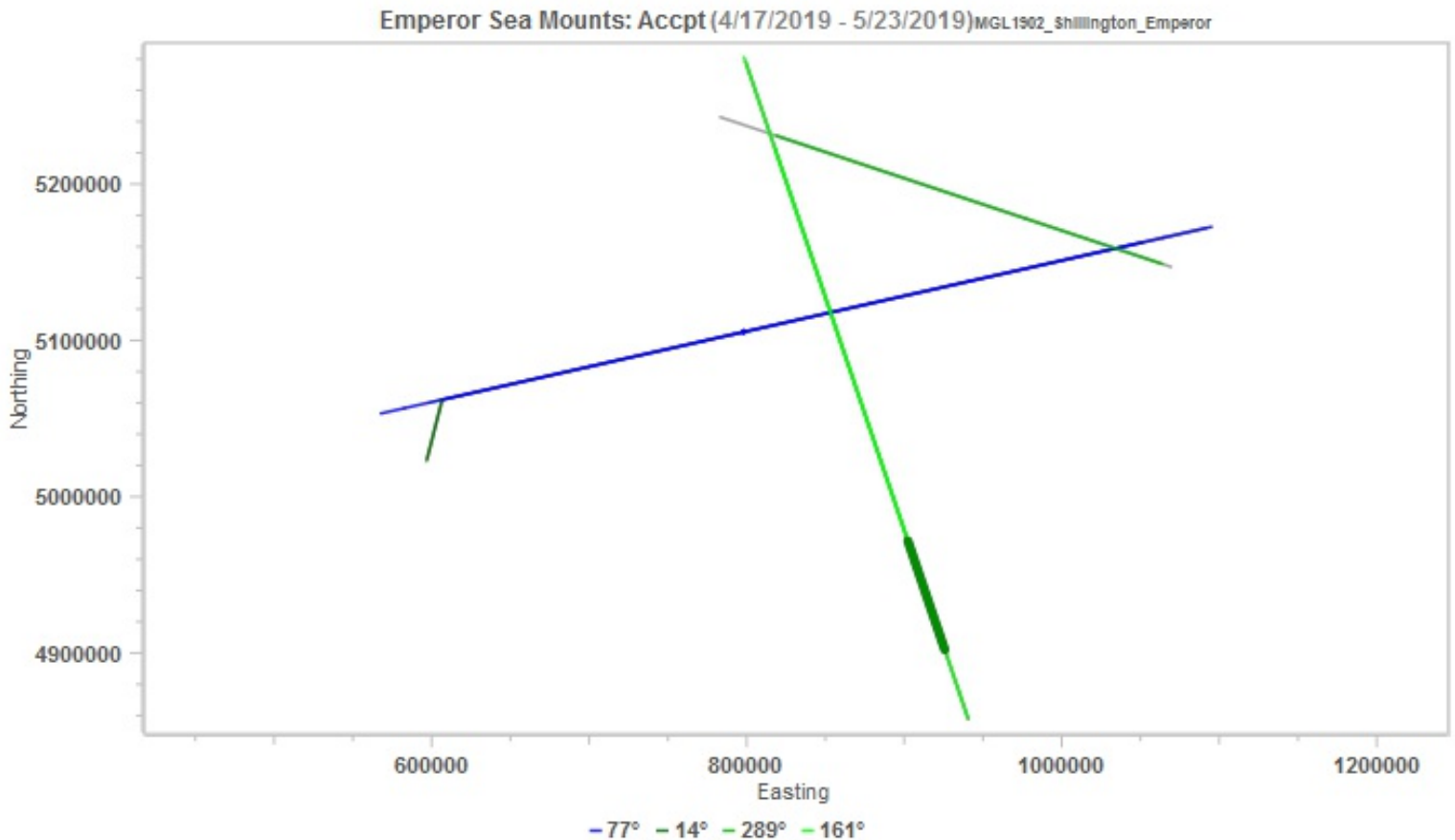
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	73.25	399.62	2076.62	2076.62
Combined	73.25	399.62	2076.62	2076.62

# Daily Science Report

5/23/2019

Page 4



## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 23 May

### 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 23 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Thu May 23 2019 04:28p.m.

Page 4

# Daily Science Report

5/23/2019

Page 5

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chile  
Fortin, Will - LDEO  
Tsekhnistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div><div></div> Toolbox Meetings</div>	Mtgs_Tbox	3	
5/23/2019			
Toolbox meeting to discuss source retrieval procedures and shift change. Toolbox meeting to discuss securing guns for transit. Toolbox meeting to discuss OBS recovery and security on deck.			



# Daily Science Report

5/24/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 24 May

We were recovering OBS's all day. We have six left to retrieve at the end of the Julian Day.

## Daily Comment Summaries - Plan for Tomorrow

Fri 24 May

We anticipate picking up all of the OBS's by midnight local time. This is very weather dependent.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)







Category	Code	Start	End	Duration
 Recovery	DM_RC	Fri 24. May 00:00	Fri 24. May 00:37	0.617
Recover OBS 220				
 Recovery	DM_RC	Fri 24. May 00:37	Fri 24. May 01:56	1.317
Recover OBS 219				
 Recovery	DM_RC	Fri 24. May 01:56	Fri 24. May 03:06	1.167
Recover OBS 218				
 Recovery	DM_RC	Fri 24. May 03:06	Fri 24. May 04:23	1.283
Recover OBS 217				
 Recovery	DM_RC	Fri 24. May 04:23	Fri 24. May 06:46	2.383
Recover OBS 216				
 Recovery	DM_RC	Fri 24. May 06:46	Fri 24. May 08:57	2.183
Recover OBS 215				
 Recovery	DM_RC	Fri 24. May 08:57	Fri 24. May 11:05	2.133
Recover OBS 214				
 Recovery	DM_RC	Fri 24. May 11:05	Fri 24. May 12:59	1.900
Recover OBS 213				
 Recovery	DM_RC	Fri 24. May 12:59	Fri 24. May 14:53	1.900
Recover OBS 212				
 Recovery	DM_RC	Fri 24. May 14:53	Fri 24. May 16:06	1.217
Recover OBS 211				
 Recovery	DM_RC	Fri 24. May 16:06	Fri 24. May 17:40	1.567
Recover OBS 118				
 Recovery	DM_RC	Fri 24. May 17:40	Fri 24. May 19:02	1.367
Recover OBS 210				

# Daily Science Report

5/24/2019

Page 2

Category	Code	Start	End	Duration
 Recovery	DM_RC	Fri 24. May 19:02	Fri 24. May 20:43	1.683
Recover OBS 209				
 Recovery	DM_RC	Fri 24. May 20:43	Fri 24. May 21:50	1.117
Recover OBS 208				
 Recovery	DM_RC	Fri 24. May 21:50	Fri 24. May 23:41	1.850
Recover OBS 207				
 Recovery	DM_RC	Fri 24. May 23:41	Fri 24. May 24:00	0.317
Recover OBS 206				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empire)

24-May	Hours	%Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Recovery	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empire)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>60.614</b>
Deployment	96.567	10.588
Mob Ashore	144.000	15.789
Reconfiguration	76.917	8.434
Transit to Prospect	235.317	25.802
<b>Acquisition</b>	<b>280.983</b>	<b>30.810</b>
Prime Extended L/C	6.167	0.676
Prime Line Change	1.217	0.133
Production Prime	273.600	30.000
<b>Demobilisation</b>	<b>39.117</b>	<b>4.289</b>
Recovery	39.117	4.289
<b>DownTime</b>	<b>2.217</b>	<b>0.243</b>
Source	2.217	0.243
<b>Chargeable Standby</b>	<b>9.333</b>	<b>1.023</b>
Reconfiguration	3.233	0.355
Source Reconfig	3.233	0.355
Transit	3.350	0.367
Weather	2.750	0.302
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>3.021</b>
Weather	27.550	3.021
<b>Total</b>	<b>912.000</b>	

# Daily Science Report

5/24/2019

Page 3

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km) - Full Fold

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

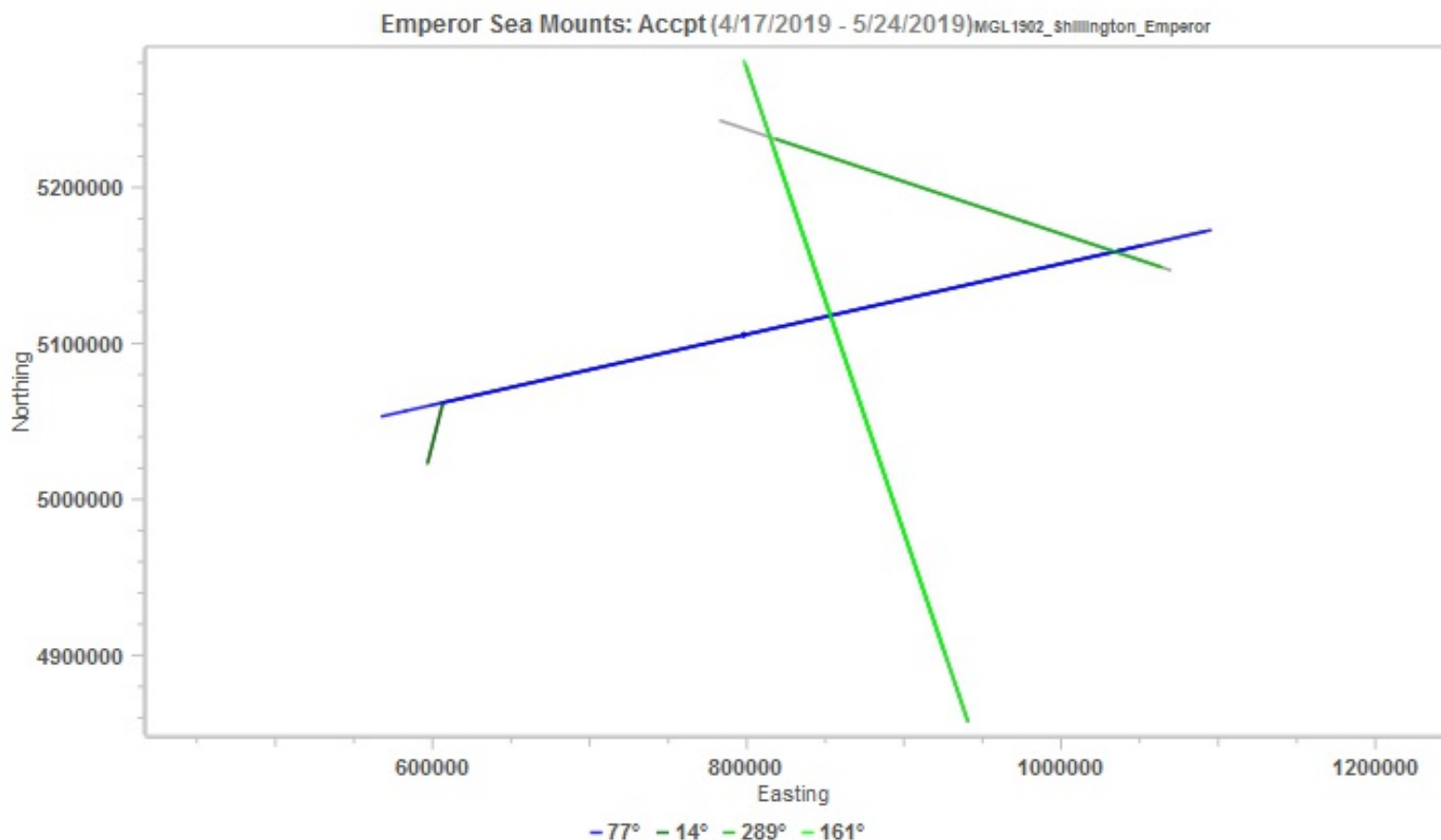
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	399.62	2076.62	2076.62
Combined	0.00	399.62	2076.62	2076.62

# Daily Science Report

5/24/2019

Page 4



## Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 24 May

### 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 24 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Fri May 24 2019 02:42p.m.

Page 4

# Daily Science Report

5/24/2019

Page 5

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div><div></div> Toolbox Meetings</div>	Mtgs_Tbox	1	
5/24/2019			
Toolbox to discuss rough weather and securing everything.			

# Daily Science Report

5/25/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 25 May








We recovered the last OBS at 07:15 UTC. The deck was secured and the transit into Kodiak has begun.

## Daily Comment Summaries - Plan for Tomorrow

Sat 25 May

Transit to Kodiak.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Recovery	DM_RC	Sat 25. May 00:00	Sat 25. May 00:56	0.933
Recover OBS 206				
 Recovery	DM_RC	Sat 25. May 00:56	Sat 25. May 02:13	1.283
Recover OBS 205				
 Recovery	DM_RC	Sat 25. May 02:13	Sat 25. May 03:34	1.350
Recover OBS 204				
 Recovery	DM_RC	Sat 25. May 03:34	Sat 25. May 04:50	1.267
Recover OBS 203				
 Recovery	DM_RC	Sat 25. May 04:50	Sat 25. May 06:06	1.267
Recover OBS 202				
 Recovery	DM_RC	Sat 25. May 06:06	Sat 25. May 07:15	1.150
Recover OBS 201				
 Transit From Prospect	DM_TF	Sat 25. May 07:15	Sat 25. May 24:00	16.750
Transit from work site to Kodiak				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

25-May	Hours	%Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Recovery	7.250	30.208
Transit From Prospect	16.750	69.792
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

# Daily Science Report

5/25/2019

Page 2

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>59.060</b>
Deployment	96.567	10.317
Mob Ashore	144.000	15.385
Reconfiguration	76.917	8.218
Transit to Prospect	235.317	25.141
<b>Acquisition</b>	<b>280.983</b>	<b>30.020</b>
Prime Extended L/C	6.167	0.659
Prime Line Change	1.217	0.130
Production Prime	273.600	29.231
<b>Demobilisation</b>	<b>63.117</b>	<b>6.743</b>
Recovery	46.367	4.954
Transit From Prospect	16.750	1.790
<b>DownTime</b>	<b>2.217</b>	<b>0.237</b>
Source	2.217	0.237
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.997</b>
Reconfiguration	3.233	0.345
Source Reconfig	3.233	0.345
Transit	3.350	0.358
Weather	2.750	0.294
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.943</b>
Weather	27.550	2.943
<b>Total</b>	<b>936.000</b>	

## Basic Project Details

MGL1902_Shillington_Empedor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

# Daily Science Report

5/25/2019

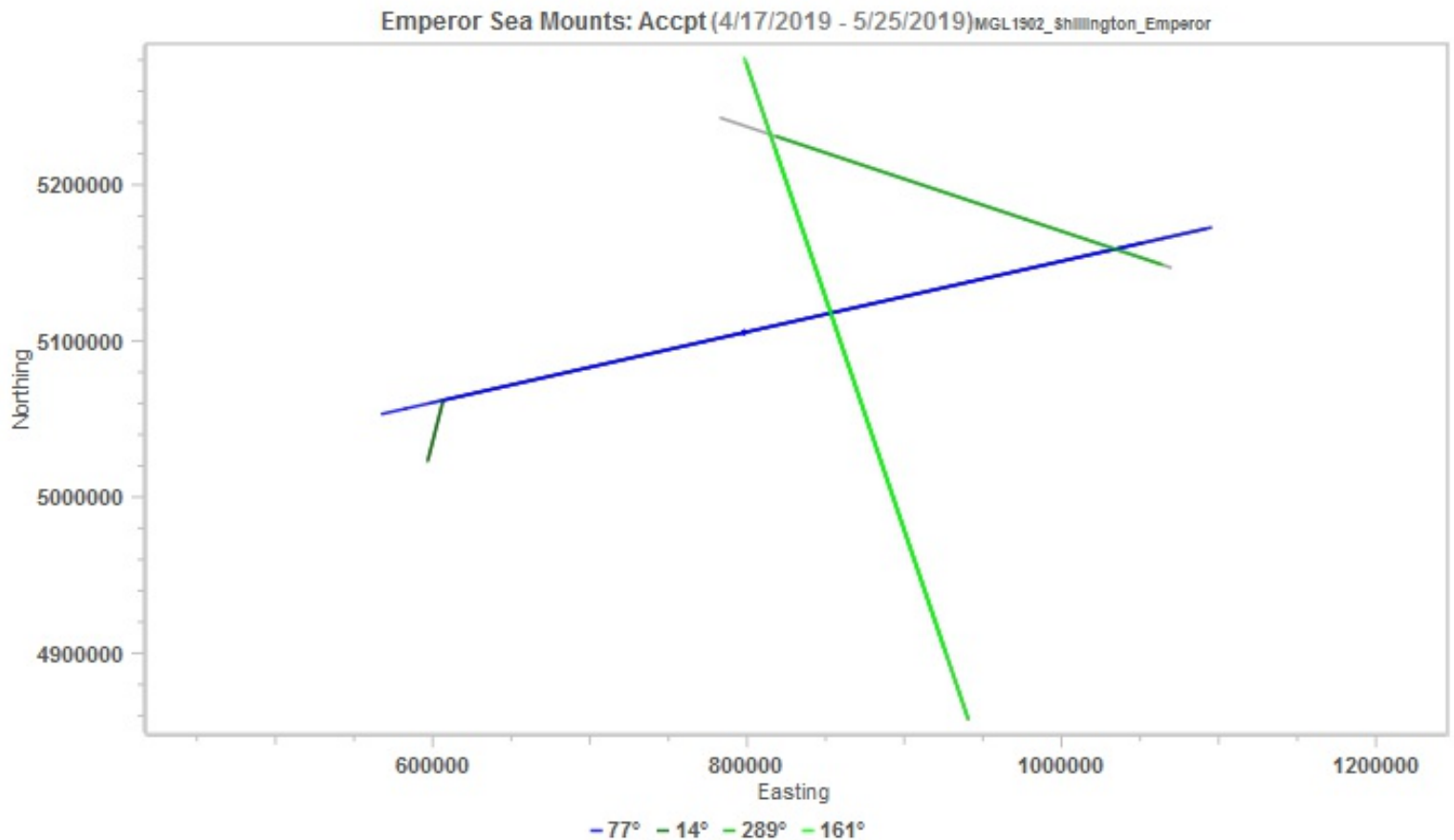
Page 3

## Production Listing (Accpt km) - Full Fold

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

## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	399.62	2076.62	2076.62
Combined	0.00	399.62	2076.62	2076.62



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 25 May

### 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 Science Report

5/25/2019

Page 4

## Daily Comment Summaries - Personnel Onboard

Sat 25 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer  
Josh Kasinger L-DEO OMO Chief Source Mechanic  
Alan Thompson L-DEO OMO Marine Science Technician - Nav  
Shaun Shaver L-DEO OMO Marine Science Technician - Source  
Gilles Guerin L-DEO OMO Marine Science Technician - Obs  
Chris Abdouch Contract Personnel Marine Science Technician (NAV)  
Max Skalko Contract Personnel Marine Science Technician (Source)  
Edmond St. Amant Contract Personnel Marine Science Technician (Source)  
Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO  
Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

### Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div><div></div> Toolbox Meetings</div>	Mtgs_Tbox	2	
5/25/2019			
Toolbox to discuss rough weather retrieval of OBS's. Toolbox to discuss securing the deck.			

# Daily Science Report

5/26/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 26 May

Transit to Kodiak from prospect.

Maintenance and preparations for next mission.


## Daily Comment Summaries - Plan for Tomorrow

Sun 26 May

Transit to Kodiak from prospect.

Maintenance and preparations for next mission.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Sun 26. May 00:00	Sun 26. May 24:00	24.000
Transit from work site to Kodiak				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

26-May	Hours	% Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit From Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>57.583</b>
Deployment	96.567	10.059
Mob Ashore	144.000	15.000
Reconfiguration	76.917	8.012
Transit to Prospect	235.317	24.512
<b>Acquisition</b>	<b>280.983</b>	<b>29.269</b>
Prime Extended L/C	6.167	0.642
Prime Line Change	1.217	0.127
Production Prime	273.600	28.500
<b>Demobilisation</b>	<b>87.117</b>	<b>9.075</b>
Recovery	46.367	4.830

# Daily Science Report

5/26/2019

Page 2

Category	Hours	%Percent
Transit From Prospect	40.750	4.245
<b>DownTime</b>	<b>2.217</b>	<b>0.231</b>
Source	2.217	0.231
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.972</b>
Reconfiguration	3.233	0.337
Source Reconfig	3.233	0.337
Transit	3.350	0.349
Weather	2.750	0.286
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.870</b>
Weather	27.550	2.870
<b>Total</b>	<b>960.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

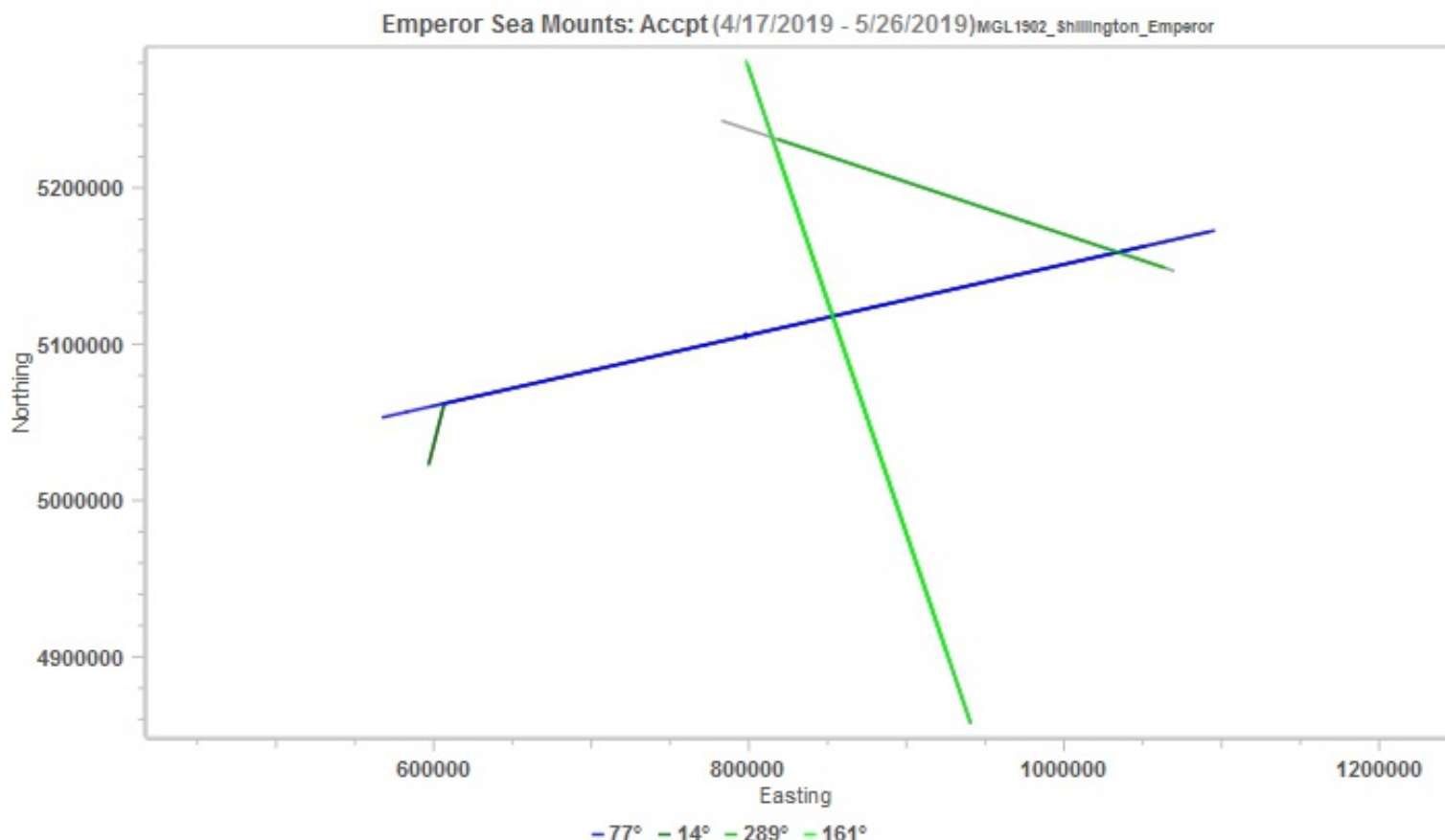
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	399.62	2076.62	2076.62
<b>Combined</b>	<b>0.00</b>	<b>399.62</b>	<b>2076.62</b>	<b>2076.62</b>

# Daily Science Report

5/26/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 26 May

### 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 26 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sun May 26 2019 02:34p.m.

Page 3

# Daily Science Report

5/26/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

5/27/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 27 May

Transit to Kodiak from prospect.

Maintenance and preparations for next mission.

Deployed 2 argo units and 1 spoon drifter


## Daily Comment Summaries - Plan for Tomorrow

Mon 27 May

Transit to Kodiak from prospect.

Maintenance and preparations for next mission.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Mon 27. May 00:00	Mon 27. May 24:00	24.000
Transit from work site to Kodiak				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

27-May	Hours	% Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit From Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>56.179</b>
Deployment	96.567	9.814
Mob Ashore	144.000	14.634
Reconfiguration	76.917	7.817
Transit to Prospect	235.317	23.914
<b>Acquisition</b>	<b>280.983</b>	<b>28.555</b>
Prime Extended L/C	6.167	0.627
Prime Line Change	1.217	0.124
Production Prime	273.600	27.805

# Daily Science Report

5/27/2019

Page 2

Category	Hours	%Percent
<b>Demobilisation</b>	<b>111.117</b>	<b>11.292</b>
Recovery	46.367	4.712
Transit From Prospect	64.750	6.580
<b>DownTime</b>	<b>2.217</b>	<b>0.225</b>
Source	2.217	0.225
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.949</b>
Reconfiguration	3.233	0.329
Source Reconfig	3.233	0.329
Transit	3.350	0.340
Weather	2.750	0.279
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.800</b>
Weather	27.550	2.800
<b>Total</b>	<b>984.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accept km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

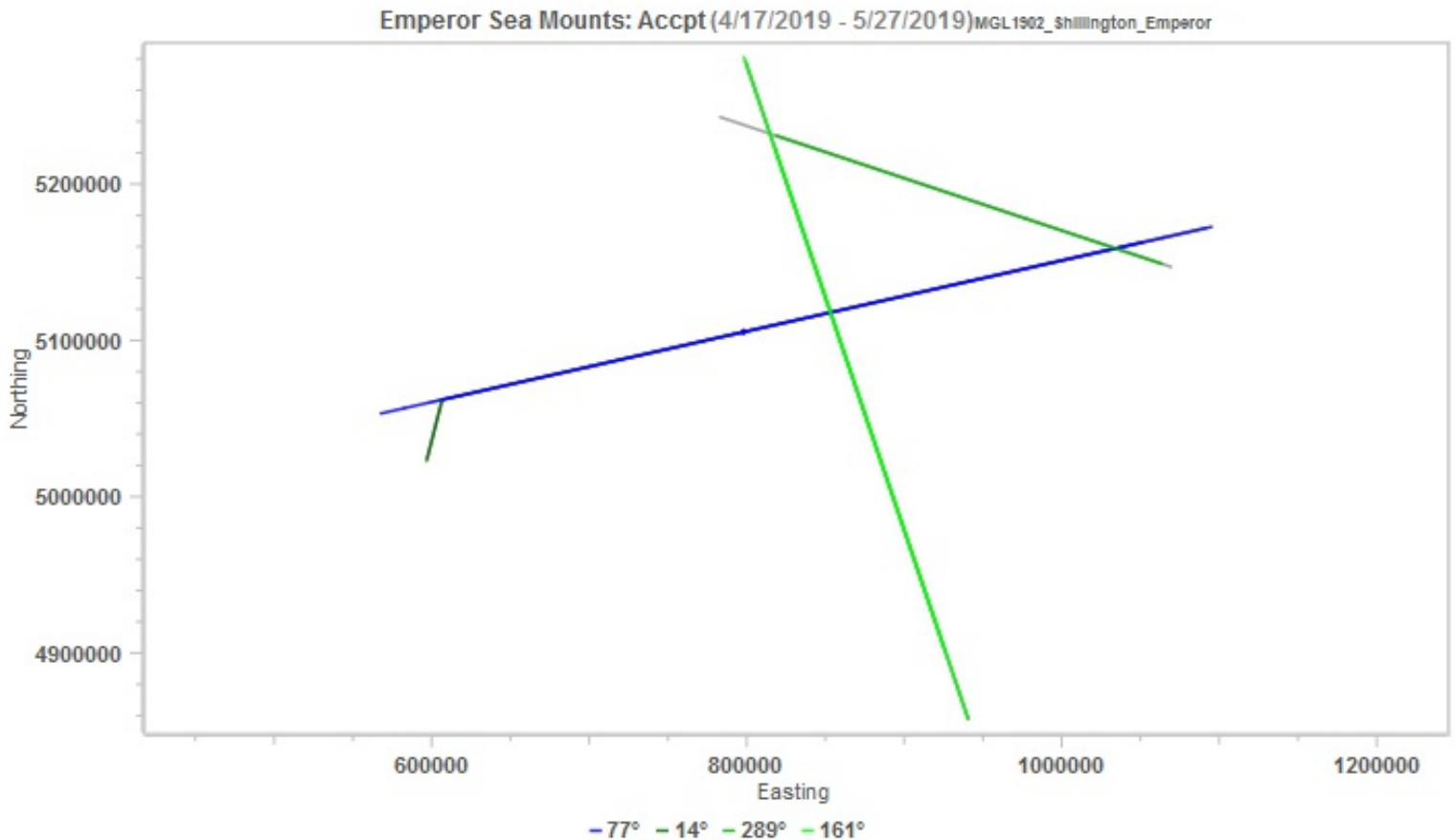
## Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	2076.62	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>	<b>2076.62</b>

# Daily Science Report

5/27/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 27 May

### 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 27 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue May 28 2019 02:17a.m.

Page 3



# Daily Science Report

5/27/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

5/28/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Tue 28 May

Transit to Kodiak from prospect.

Maintenance and preparations for next mission.

Deployed 1 Argo units and 1 spoon drifter


## Daily Comment Summaries - Plan for Tomorrow

Tue 28 May

Transit to Kodiak from prospect.

Maintenance and preparations for next mission.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Tue 28. May 00:00	Tue 28. May 24:00	24.000
Transit from work site to Kodiak				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

28-May	Hours	% Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit From Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empedor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>54.841</b>
Deployment	96.567	9.580
Mob Ashore	144.000	14.286
Reconfiguration	76.917	7.631
Transit to Prospect	235.317	23.345
<b>Acquisition</b>	<b>280.983</b>	<b>27.875</b>
Prime Extended L/C	6.167	0.612
Prime Line Change	1.217	0.121

# Daily Science Report

5/28/2019

Page 2

Category	Hours	%Percent
Production Prime	273.600	27.143
<b>Demobilisation</b>	<b>135.117</b>	<b>13.404</b>
Recovery	46.367	4.600
Transit From Prospect	88.750	8.805
<b>DownTime</b>	<b>2.217</b>	<b>0.220</b>
Source	2.217	0.220
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.926</b>
Reconfiguration	3.233	0.321
Source Reconfig	3.233	0.321
Transit	3.350	0.332
Weather	2.750	0.273
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.733</b>
Weather	27.550	2.733
<b>Total</b>	<b>1008.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accept km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

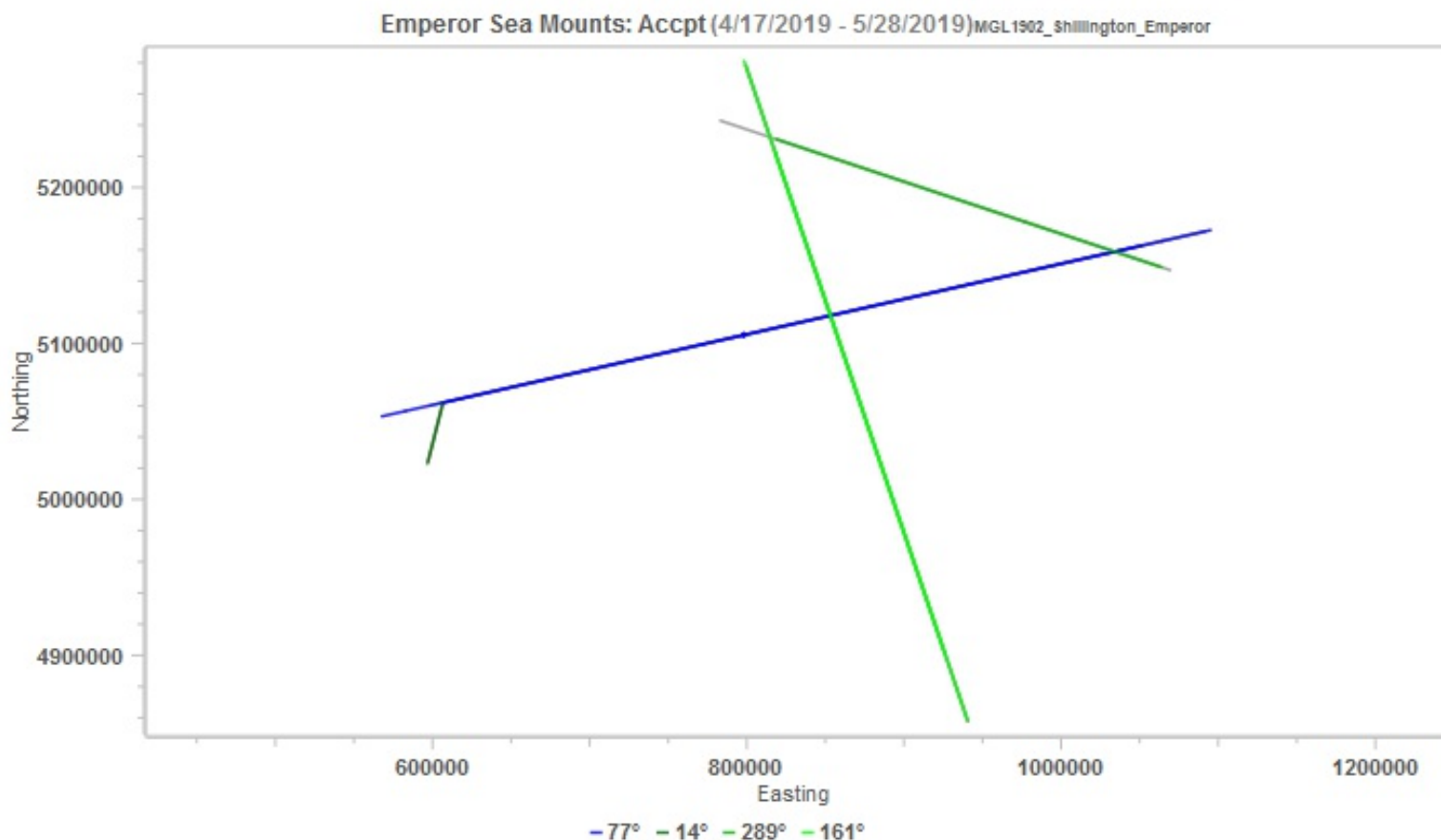
## Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	2076.62	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>	<b>2076.62</b>

# Daily Science Report

5/28/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 28 May

### Navigation:

No Major Issues to Report

### Information Technology (IT):

Maintaining and replacing some camera's on deck.

### Acquisition (OBS):

Rigging Partnerplast tail-buoy.

### Towing and Handling (Source):

New legs and lift ropes on doors. Re-spliced wide tow ropes.

### General Purpose Science:

No Major Issues to Report

## Daily Comment Summaries - Personnel Onboard

Tue 28 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Tue May 28 2019 08:34a.m.

Page 3

# Daily Science Report

5/28/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
Daily Total Category	Code	Count	
<div></div> Toolbox Meetings	Mtgs_Tbox	1	
5/28/2019			
Toolbox meeting to discuss moving OBS's for gangway placement.			

# Daily Science Report

5/29/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Wed 29 May

Transit to Kodiak from prospect.

Deployed the last Argo and Spoon-drifter floats.


Crew Safety Meeting today.

## Daily Comment Summaries - Plan for Tomorrow

Wed 29 May

Transit to Kodiak from prospect.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Wed 29. May 00:00	Wed 29. May 24:00	24.000
Transit to Kodiak from prospect.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

29-May	Hours	% Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit From Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporer)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>53.566</b>
Deployment	96.567	9.357
Mob Ashore	144.000	13.953
Reconfiguration	76.917	7.453
Transit to Prospect	235.317	22.802
<b>Acquisition</b>	<b>280.983</b>	<b>27.227</b>
Prime Extended L/C	6.167	0.598
Prime Line Change	1.217	0.118
Production Prime	273.600	26.512

# Daily Science Report

5/29/2019

Page 2

Category	Hours	%Percent
<b>Demobilisation</b>	<b>159.117</b>	<b>15.418</b>
Recovery	46.367	4.493
Transit From Prospect	112.750	10.925
<b>DownTime</b>	<b>2.217</b>	<b>0.215</b>
Source	2.217	0.215
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.904</b>
Reconfiguration	3.233	0.313
Source Reconfig	3.233	0.313
Transit	3.350	0.325
Weather	2.750	0.266
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.670</b>
Weather	27.550	2.670
<b>Total</b>	<b>1032.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accept km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

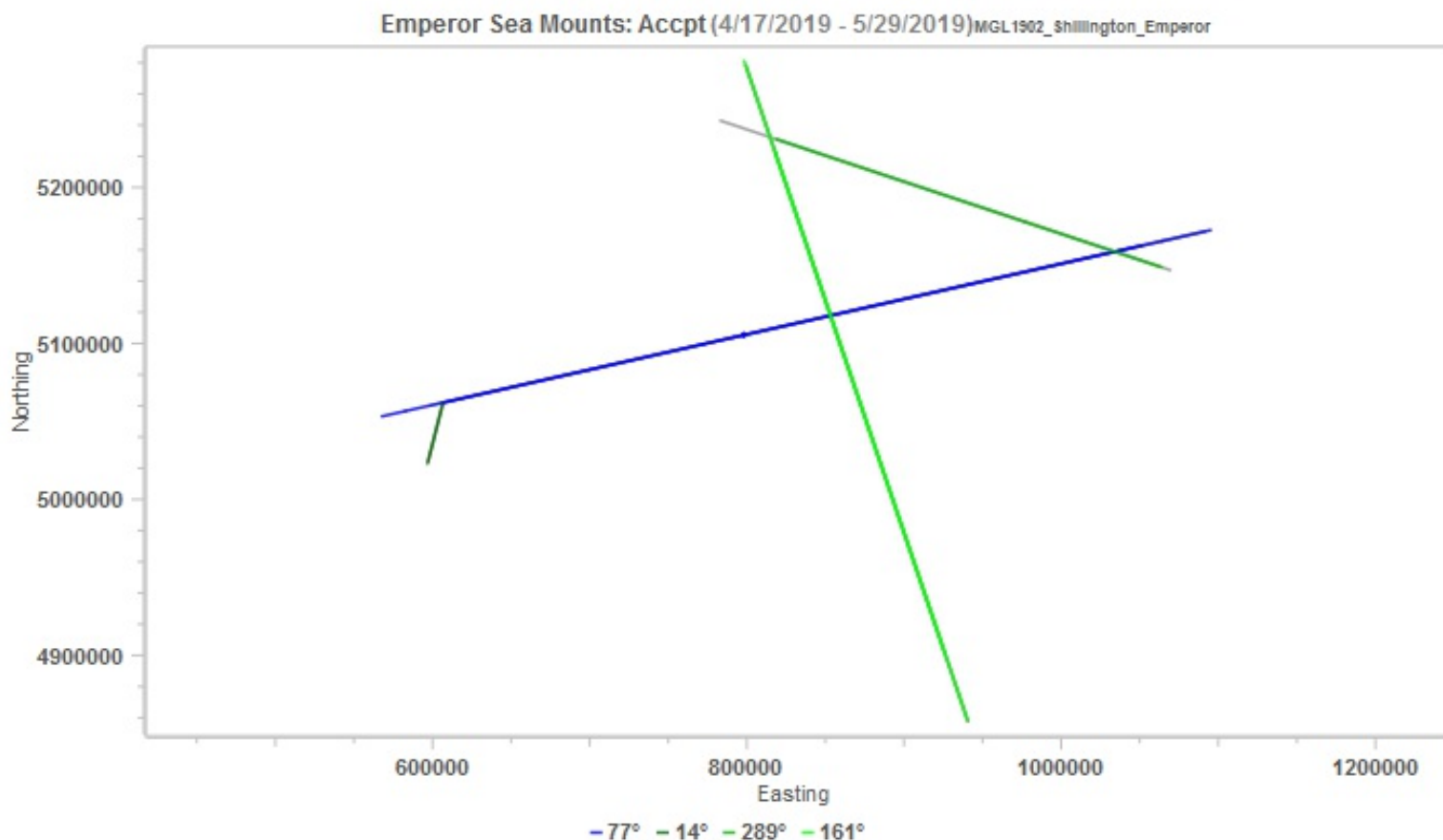
## Production Totals (Accept km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	2076.62	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>	<b>2076.62</b>

# Daily Science Report

5/29/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 29 May

### 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 29 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Fri May 31 2019 05:06a.m.

Page 3



# Daily Science Report

5/29/2019

Page 4


Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leeburn, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
 Full Safety Meeting	Mtgs_FS	Wed 29. May 19:20	Wed 29. May 19:50
HSE - Full Safety Meeting			

Daily Total Category	Code	Count
 Toolbox Meetings	Mtgs_Tbox	1
5/29/2019		
Toolbox Meeting to discuss Vane deployment and retrieval. New JSA and Procedure are written for these.		

# Daily Science Report

5/30/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Thu 30 May


Transit to Kodiak from prospect.

## Daily Comment Summaries - Plan for Tomorrow

Thu 30 May

Plan to deploy vanes to test the wide tow winches and vanes,

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Thu 30. May 00:00	Thu 30. May 24:00	24.000
Transit from work site to Kodiak				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

30-May	Hours	%Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit From Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>52.348</b>
Deployment	96.567	9.145
Mob Ashore	144.000	13.636
Reconfiguration	76.917	7.284
Transit to Prospect	235.317	22.284
<b>Acquisition</b>	<b>280.983</b>	<b>26.608</b>
Prime Extended L/C	6.167	0.584
Prime Line Change	1.217	0.115
Production Prime	273.600	25.909
<b>Demobilisation</b>	<b>183.117</b>	<b>17.341</b>
Recovery	46.367	4.391
Transit From Prospect	136.750	12.950

# Daily Science Report

5/30/2019

Page 2

Category	Hours	%Percent
<b>DownTime</b>	<b>2.217</b>	<b>0.210</b>
Source	2.217	0.210
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.884</b>
Reconfiguration	3.233	0.306
Source Reconfig	3.233	0.306
Transit	3.350	0.317
Weather	2.750	0.260
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.609</b>
Weather	27.550	2.609
<b>Total</b>	<b>1056.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

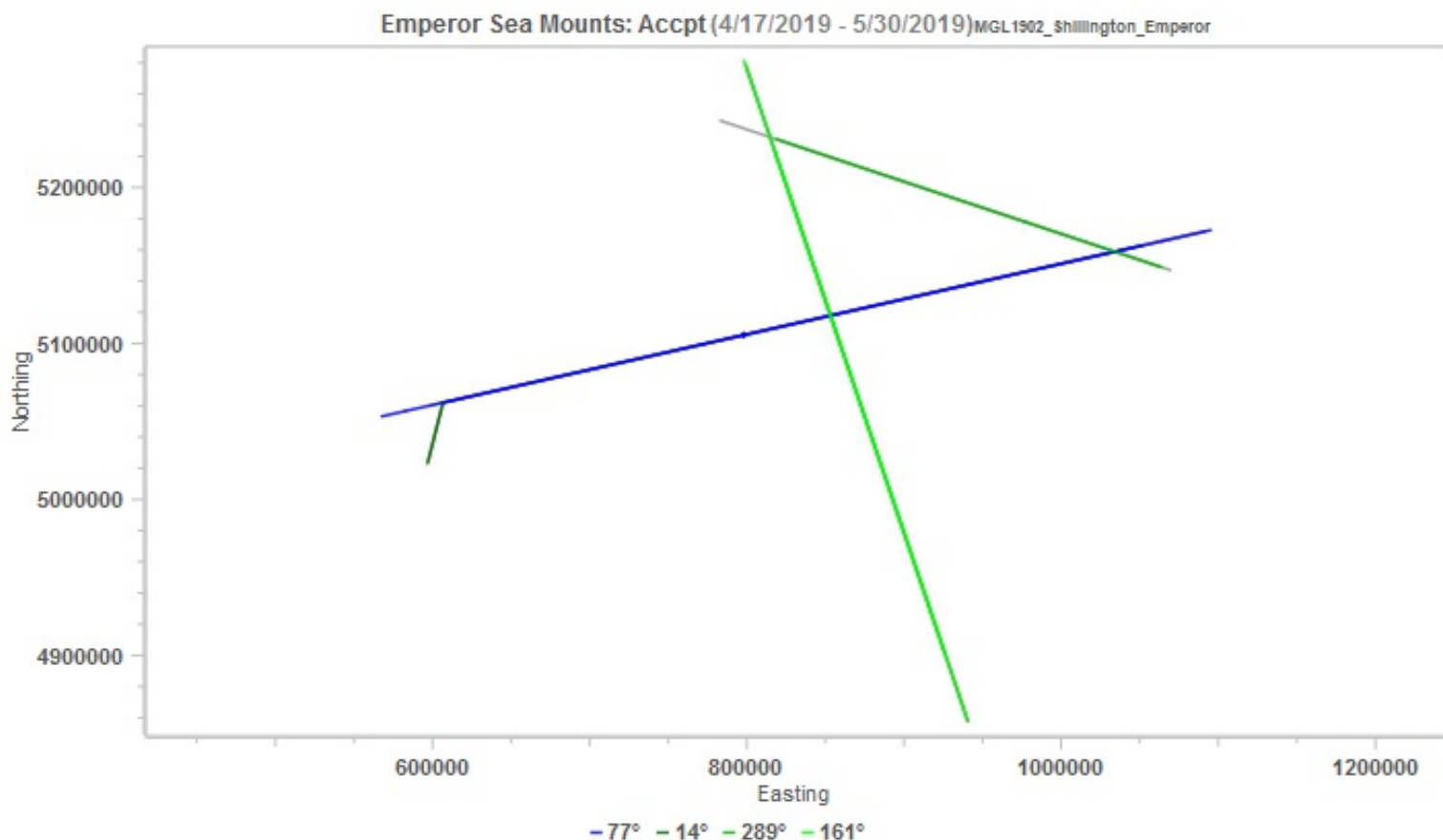
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	2076.62	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>	<b>2076.62</b>

# Daily Science Report

5/30/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 30 May

### 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 30 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Fri May 31 2019 05:06a.m.

Page 3

# Daily Science Report

5/30/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

5/31/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Fri 31 May

Continued transit from prospect to Kodiak.

We deployed the port vane and tested the wide tow winch. We also marked our wide tow rope to 450 meters.


## Daily Comment Summaries - Plan for Tomorrow

Fri 31 May

Continued transit from prospect to Kodiak.

We will deploy the starboard vane and test the starboard wide tow winch tomorrow morning.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Fri 31. May 00:00	Fri 31. May 24:00	24.000
Continued transit from prospect to Kodiak.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Empor)

31-May	Hours	% Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Transit From Prospect	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Empor)

Category	Hours	% Percent
<b>Mobilisation</b>	<b>552.800</b>	<b>51.185</b>
Deployment	96.567	8.941
Mob Ashore	144.000	13.333
Reconfiguration	76.917	7.122
Transit to Prospect	235.317	21.789
<b>Acquisition</b>	<b>280.983</b>	<b>26.017</b>
Prime Extended L/C	6.167	0.571
Prime Line Change	1.217	0.113

# Daily Science Report

5/31/2019

Page 2

Category	Hours	%Percent
Production Prime	273.600	25.333
<b>Demobilisation</b>	<b>207.117</b>	<b>19.177</b>
Recovery	46.367	4.293
Transit From Prospect	160.750	14.884
<b>DownTime</b>	<b>2.217</b>	<b>0.205</b>
Source	2.217	0.205
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.864</b>
Reconfiguration	3.233	0.299
Source Reconfig	3.233	0.299
Transit	3.350	0.310
Weather	2.750	0.255
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.551</b>
Weather	27.550	2.551
<b>Total</b>	<b>1080.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Acpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

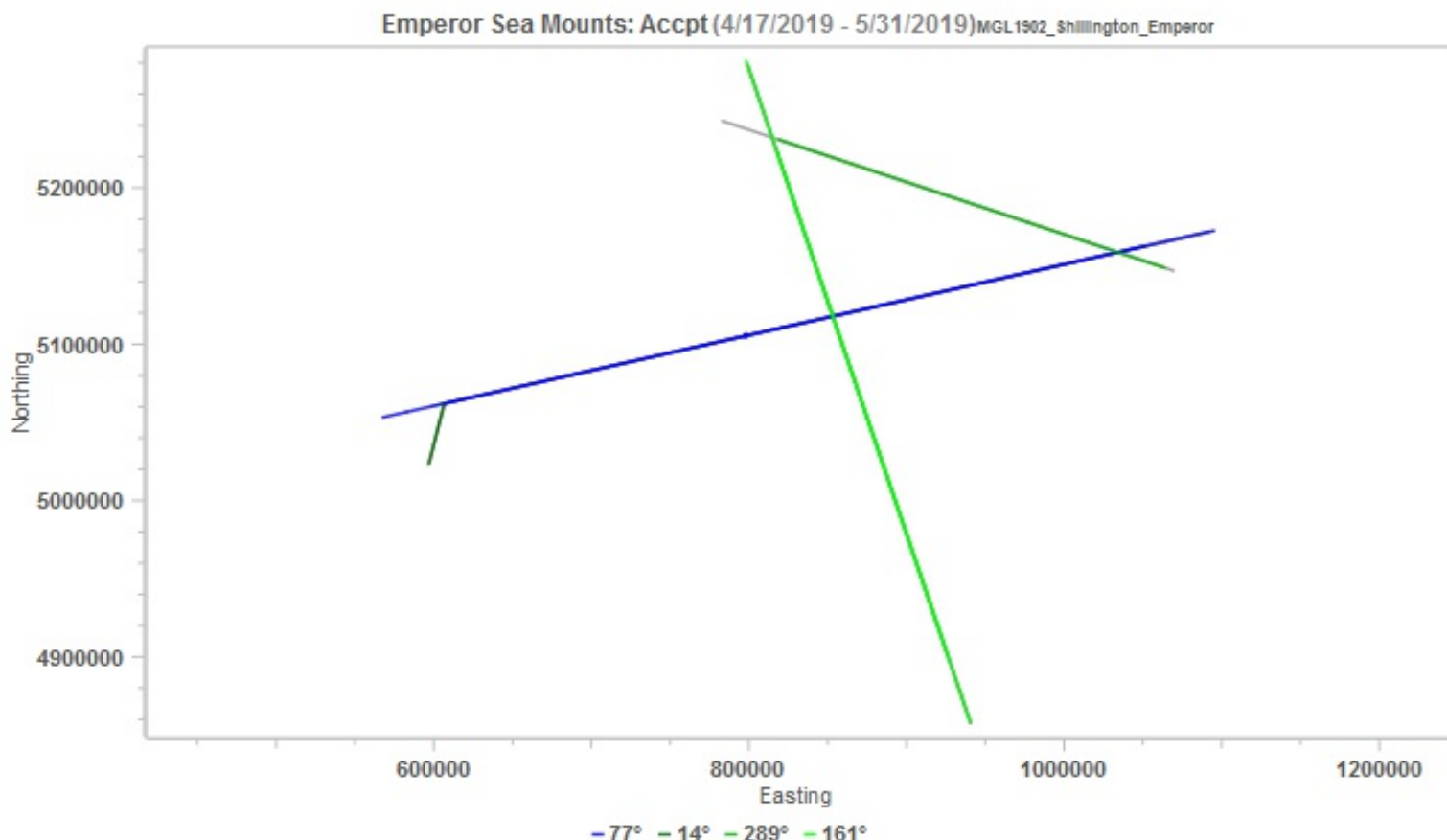
## Production Totals (Acpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	2076.62	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>	<b>2076.62</b>

# Daily Science Report

5/31/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 31 May

### 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 31 May

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Fri May 31 2019 01:59p.m.

Page 3



# Daily Science Report

5/31/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

6/1/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sat 01 Jun

Deployed starboard vane during transit to inspect legs, rigging, tow rope and wide tow winch. All is ok.

Arrived into port at Kodiak USCG Base at 23:15 UTC.

Taking provisions as soon as we were secured to the pier.

## Daily Comment Summaries - Plan for Tomorrow

Sat 01 Jun

Port call in Kodiak. Demobilization details. Prep for crew change and mission change.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Transit From Prospect	DM_TF	Sat 1. Jun 00:00	Sat 1. Jun 23:15	23.250
Transit to Kodiak from prospect				
 Demob Ashore	DM_DA	Sat 1. Jun 23:15	Sat 1. Jun 24:00	0.750
Dockside at Kodiak USCG Base.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

1-Jun	Hours	%Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Demob Ashore	0.750	3.125
Transit From Prospect	23.250	96.875
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Demobilisation</b>	<b>231.117</b>	<b>20.934</b>
Demob Ashore	0.750	0.068
Recovery	46.367	4.200
Transit From Prospect	184.000	16.667
<b>Mobilisation</b>	<b>552.800</b>	<b>50.072</b>
Deployment	96.567	8.747
Mob Ashore	144.000	13.043

# Daily Science Report

6/1/2019

Page 2

Category	Hours	%Percent
Reconfiguration	76.917	6.967
Transit to Prospect	235.317	21.315
<b>Acquisition</b>	<b>280.983</b>	<b>25.451</b>
Prime Extended L/C	6.167	0.559
Prime Line Change	1.217	0.110
Production Prime	273.600	24.783
<b>DownTime</b>	<b>2.217</b>	<b>0.201</b>
Source	2.217	0.201
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.845</b>
Reconfiguration	3.233	0.293
Source Reconfig	3.233	0.293
Transit	3.350	0.303
Weather	2.750	0.249
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.495</b>
Weather	27.550	2.495
<b>Total</b>	<b>1104.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

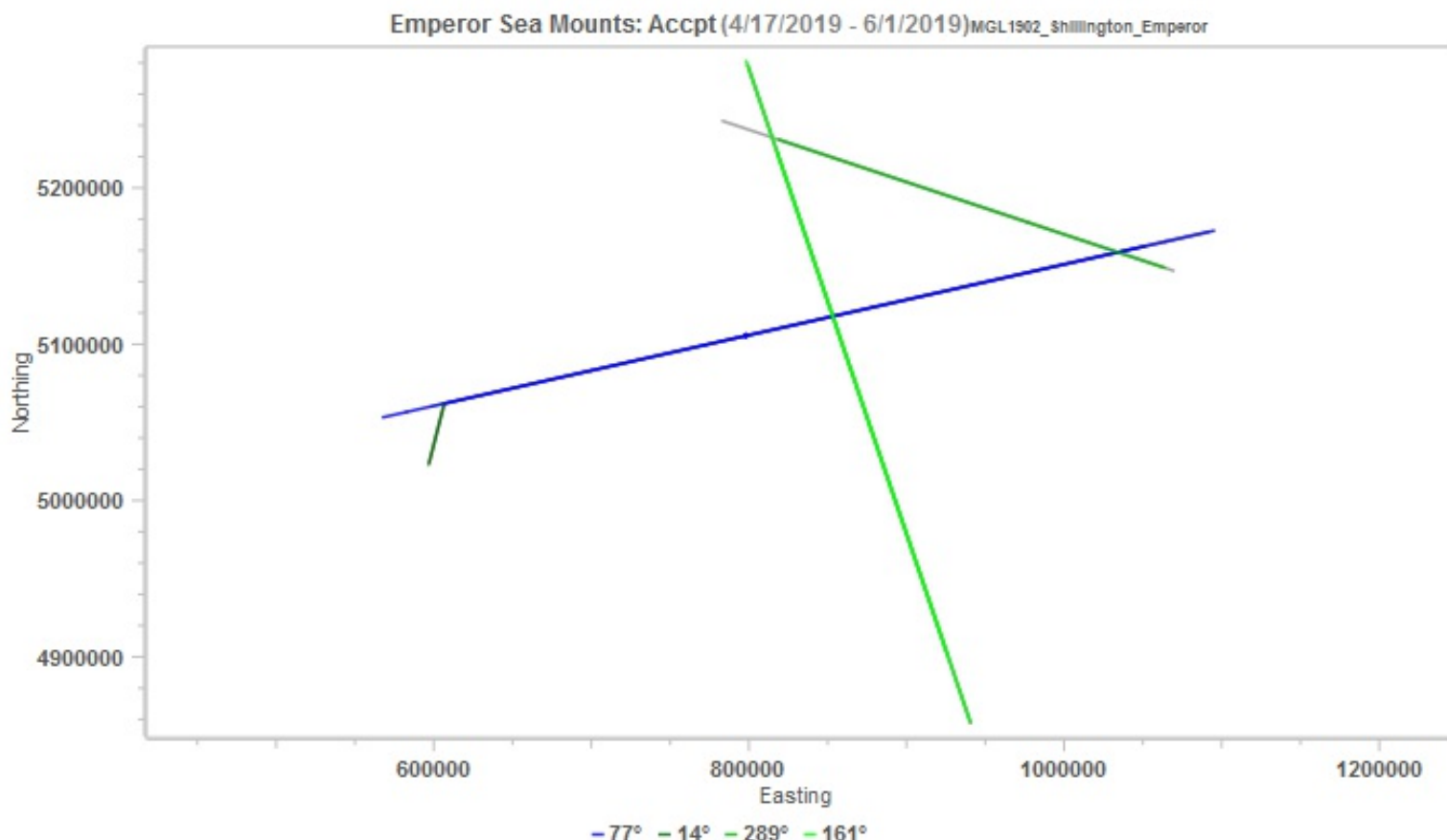
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>

# Daily Science Report

6/1/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 01 Jun

### 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 01 Jun

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Sat Jun 1 2019 02:38p.m.

Page 3

# Daily Science Report

6/1/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

6/2/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Sun 02 Jun


Science party departed the vessel.  
Gravity tie performed.

## Daily Comment Summaries - Plan for Tomorrow

Sun 02 Jun

Port call in Kodiak. Demobilization details. Prep for crew change and mission change.

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Code	Start	End	Duration
 Demob Ashore	DM_DA	Sun 2. Jun 00:00	Sun 2. Jun 24:00	24.000
Dockside at Kodiak USCG Base.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

2-Jun	Hours	%Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Demob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emporor)

Category	Hours	%Percent
<b>Demobilisation</b>	<b>255.117</b>	<b>22.617</b>
Demob Ashore	24.750	2.194
Recovery	46.367	4.111
Transit From Prospect	184.000	16.312
<b>Mobilisation</b>	<b>552.800</b>	<b>49.007</b>
Deployment	96.567	8.561
Mob Ashore	144.000	12.766
Reconfiguration	76.917	6.819
Transit to Prospect	235.317	20.861
<b>Acquisition</b>	<b>280.983</b>	<b>24.910</b>
Prime Extended L/C	6.167	0.547
Prime Line Change	1.217	0.108
Production Prime	273.600	24.255

# Daily Science Report

6/2/2019

Page 2

Category	Hours	%Percent
<b>DownTime</b>	<b>2.217</b>	<b>0.197</b>
Source	2.217	0.197
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.827</b>
Reconfiguration	3.233	0.287
Source Reconfig	3.233	0.287
Transit	3.350	0.297
Weather	2.750	0.244
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.442</b>
Weather	27.550	2.442
<b>Total</b>	<b>1128.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Accpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

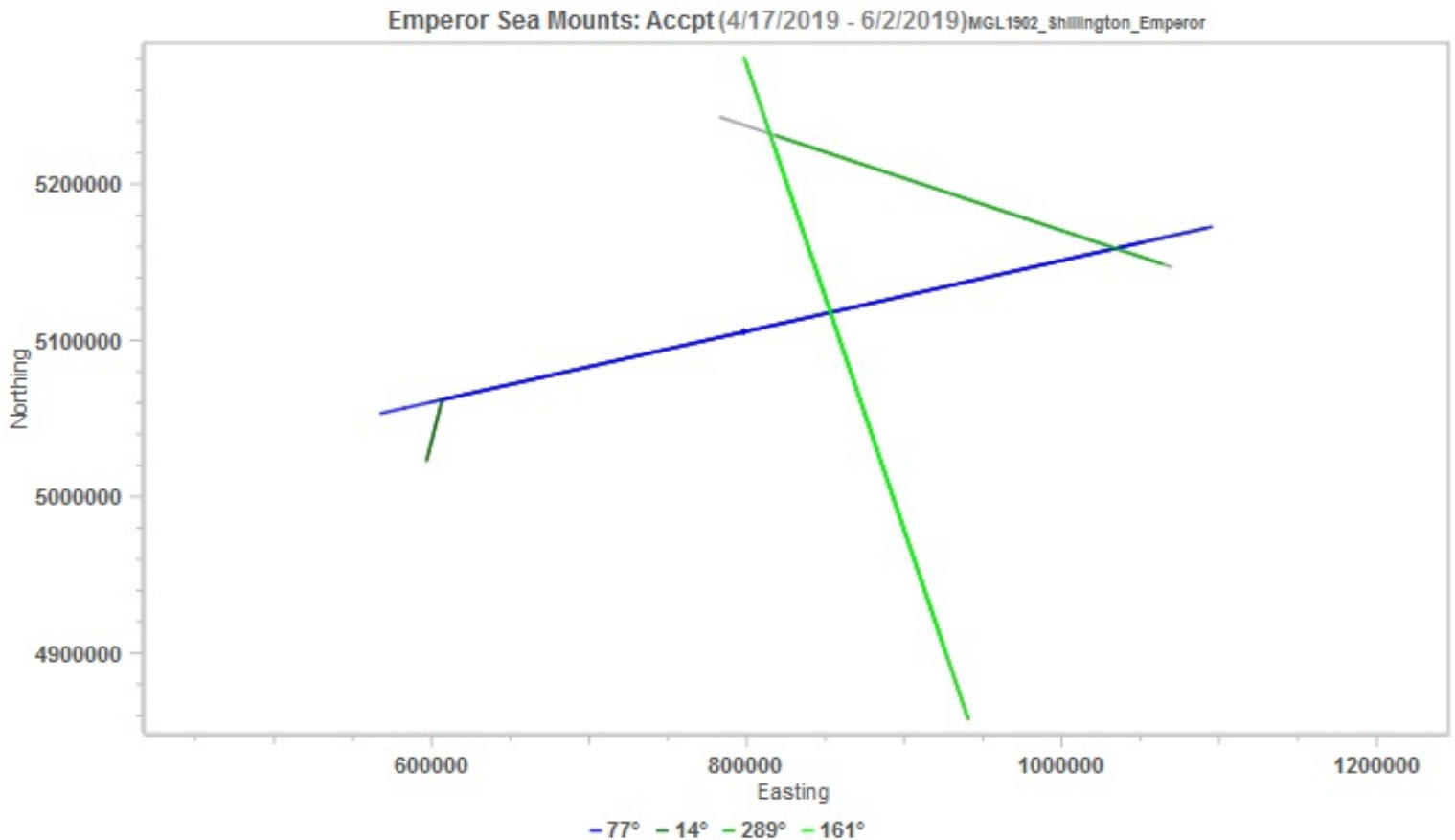
## Production Totals (Accpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>

# Daily Science Report

6/2/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 02 Jun

### 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 02 Jun

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Mon Jun 3 2019 12:54p.m.

Page 3



# Daily Science Report

6/2/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----

# Daily Science Report

6/3/2019

Page 1

<b>Client:</b>	United States National Science Foundation	<b>Contractor:</b>	Lamont-Doherty Earth Observatory
<b>Job No:</b>	MGL1902	<b>Job No:</b>	MGL1902
<b>Block:</b>	Emperor Sea Mounts	<b>Vessel:</b>	Marcus G Langseth
<b>Client Contact:</b>	Donna Shillington	<b>Supervisor:</b>	Sean Higgins
<b>Consultancy:</b>		<b>Party Chiefs:</b>	Sean Higgins
<b>Job No:</b>		<b>Client Reps:</b>	Donna Shillington

## Daily Comment Summaries - Daily Summary

Mon 03 Jun

Dockside at Kodiak USCG Base. Continue demobilization.

We discovered an air-leak inside the bell housing on the #2 hose bundle. Preparing to change the bundle before sailing.


This completes the MGL-1902 Emperor Sea Mounts.

Thanks Donna Shillington!

## Daily Comment Summaries - Plan for Tomorrow

Mon 03 Jun

## Timing Diary (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Code	Start	End	Duration
 Demob Ashore	DM_DA	Mon 3. Jun 00:00	Mon 3. Jun 24:00	24.000
Dockside at Kodiak USCG Base.				

## Timing Day By Day (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

3-Jun	Hours	% Percent
<b>Demobilisation</b>	<b>24.000</b>	<b>100.000</b>
Demob Ashore	24.000	100.000
<b>Day's Total</b>	<b>24.000</b>	<b>100.000</b>

## Timing Breakdown Summary - Project (Marcus G Langseth, MGL1902\_Shillington\_Emperor)

Category	Hours	% Percent
<b>Demobilisation</b>	<b>279.117</b>	<b>24.229</b>
Demob Ashore	48.750	4.232
Recovery	46.367	4.025
Transit From Prospect	184.000	15.972
<b>Mobilisation</b>	<b>552.800</b>	<b>47.986</b>
Deployment	96.567	8.383
Mob Ashore	144.000	12.500
Reconfiguration	76.917	6.677
Transit to Prospect	235.317	20.427

# Daily Science Report

6/3/2019

Page 2

Category	Hours	%Percent
<b>Acquisition</b>	<b>280.983</b>	<b>24.391</b>
Prime Extended L/C	6.167	0.535
Prime Line Change	1.217	0.106
Production Prime	273.600	23.750
<b>DownTime</b>	<b>2.217</b>	<b>0.192</b>
Source	2.217	0.192
<b>Chargeable Standby</b>	<b>9.333</b>	<b>0.810</b>
Reconfiguration	3.233	0.281
Source Reconfig	3.233	0.281
Transit	3.350	0.291
Weather	2.750	0.239
<b>Non-Chargeable StandBy</b>	<b>27.550</b>	<b>2.391</b>
Weather	27.550	2.391
<b>Total</b>	<b>1152.000</b>	

## Basic Project Details

MGL1902_Shillington_Emperor					
General Details					
Record length:	26000 ms	Sample rate:	2 ms	Shotpoint interval:	62.5 m
CoS to CNG:	208 m	Fold Coverage:	252		
Cable Details					
No of Cables:	1	Chans Per Cable:	1188	Front Depth:	12 m
Tail Depth:	12 m	Length:	14850 m	Group interval:	12.5 m
Source Details					
No of Sources:	1	Total Volume:	6600 cu ins	Depth:	12 m
Pressure:	1950 PSI	Volume:	6600	Strings per source:	4
String Separation:	6 m	String length:	18 m		
Comment					
Emperor Sea Mounts					

## Production Listing (Acpt km) - Full Fold

Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
<b>Total</b>					<b>0.00</b>			

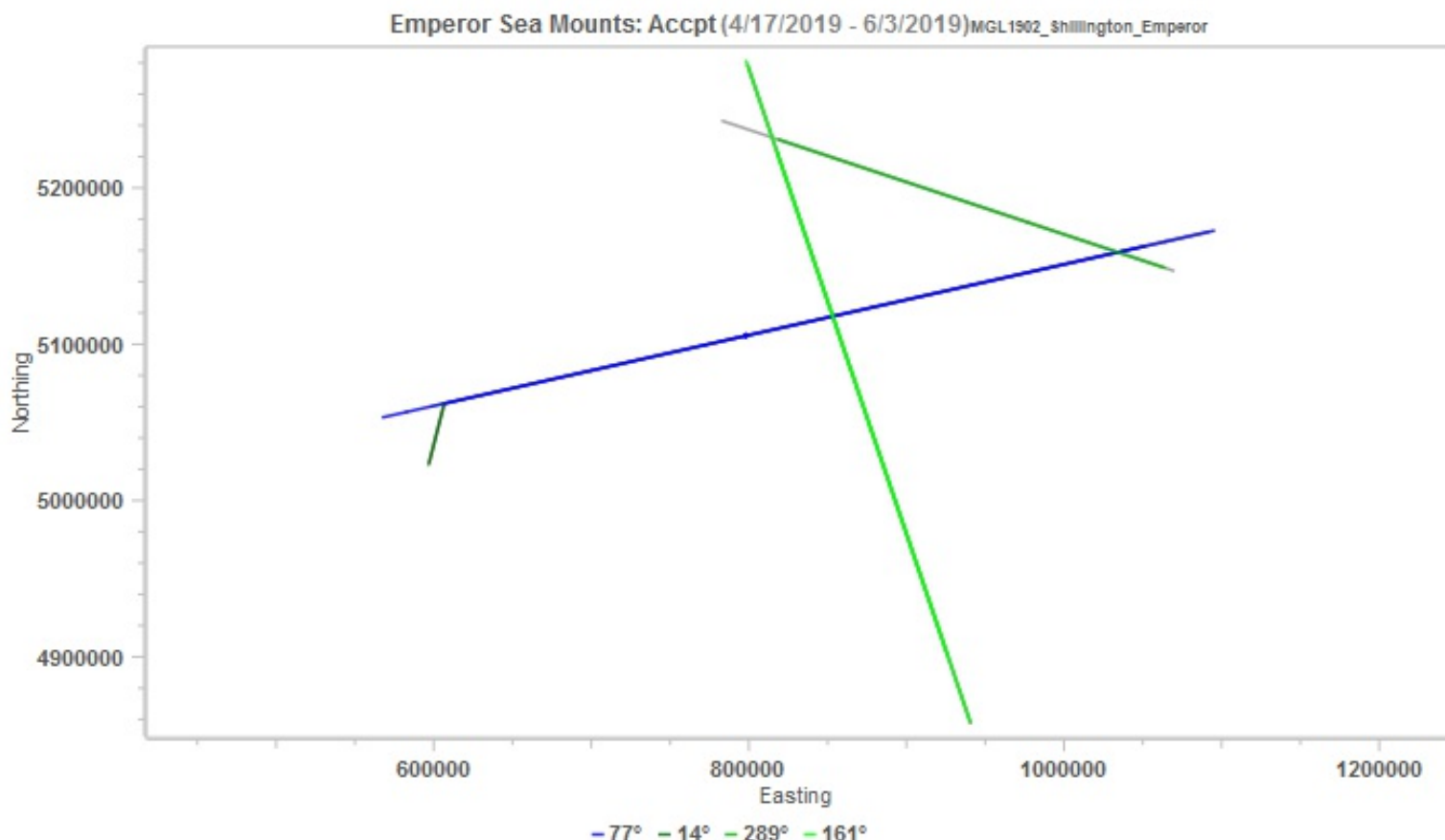
## Production Totals (Acpt km by interval) - Full Fold

Accepted km	Day	Week	Month	Project
Prime	0.00	0.00	0.00	2076.62
<b>Combined</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2076.62</b>

# Daily Science Report

6/3/2019

Page 3



## Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 03 Jun

### 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 03 Jun

### Technical Staff On-board the Langseth

Todd Jensvold L-DEO OMO Chief Science Officer

Josh Kasinger L-DEO OMO Chief Source Mechanic

Alan Thompson L-DEO OMO Marine Science Technician - Nav

Shaun Shaver L-DEO OMO Marine Science Technician - Source

Gilles Guerin L-DEO OMO Marine Science Technician - Obs

Chris Abdouch Contract Personnel Marine Science Technician (NAV)

Max Skalko Contract Personnel Marine Science Technician (Source)

Edmond St. Amant Contract Personnel Marine Science Technician (Source)

Brian Agee Contract Personnel Marine Science Technician (Source)

### PSO Staff On-board the Langseth

Amanda Dubuque RPS Lead PSO

(UTC 00:00) UTC - Universal Time Coordinated

Generated on Mon Jun 3 2019 01:01p.m.

Page 3

# Daily Science Report

6/3/2019

Page 4

Andrea Zavaia RPS PAM / PSO  
Ana Hernandez RPS PSO  
Veronica Gonzales RPS PSO  
Karla Medina RPS PSO

## Science Party On-board the Langseth

Shillington, Donna LDEO PI  
Watts, Anthony Oxford PI  
Dunn, Robert University of Hawaii PI  
Boston, Brian - LDEO  
Cortes-Rivas, Valeria - University of Chil  
Fortin, Will - LDEO  
Tsekhmistrenko, Maria - Oxford  
Harper, Hugh - Scripps  
Lei, Mei - University of Houston  
Nyugen, Luan - Rice University  
Leebum, Jeff - PSU  
Filbrandt, Christian - Geomar OBS Tech  
Gomez Laura - Geomar OBS Tech  
Schroeder, Patrick - Geomar OBS Tech  
Kane, Timothy WHOI OBS tech

## HSE Events Diary (Marcus G Langseth)

Category	Code	Start	End
----------	------	-------	-----