

5/7/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sun 07 May

A lot of action on deck today with mobilizing for our sailing date of May 9th.

The deck crew were busy craning, securing and installing all day. Great Work!

The technical team were preparing the Main Lab, Streamer and Gun decks.

The USGS team arrived and started to prepare the traducer and over the side pole.

Daily Comment Summaries - Plan for Tomorrow

Sun 07 May

Continue with Mobilization Ops.

The full Science team will join in the morning.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	24:00	Mob Ashore	MB_MA	24.000
Mobilizing at Norfolk, Virginia.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

7-May	Hours	% Percent
Mobilisation	24.000	100.000
Mob Ashore	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

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

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m

MCS 6000m					
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

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

MCS 6000m

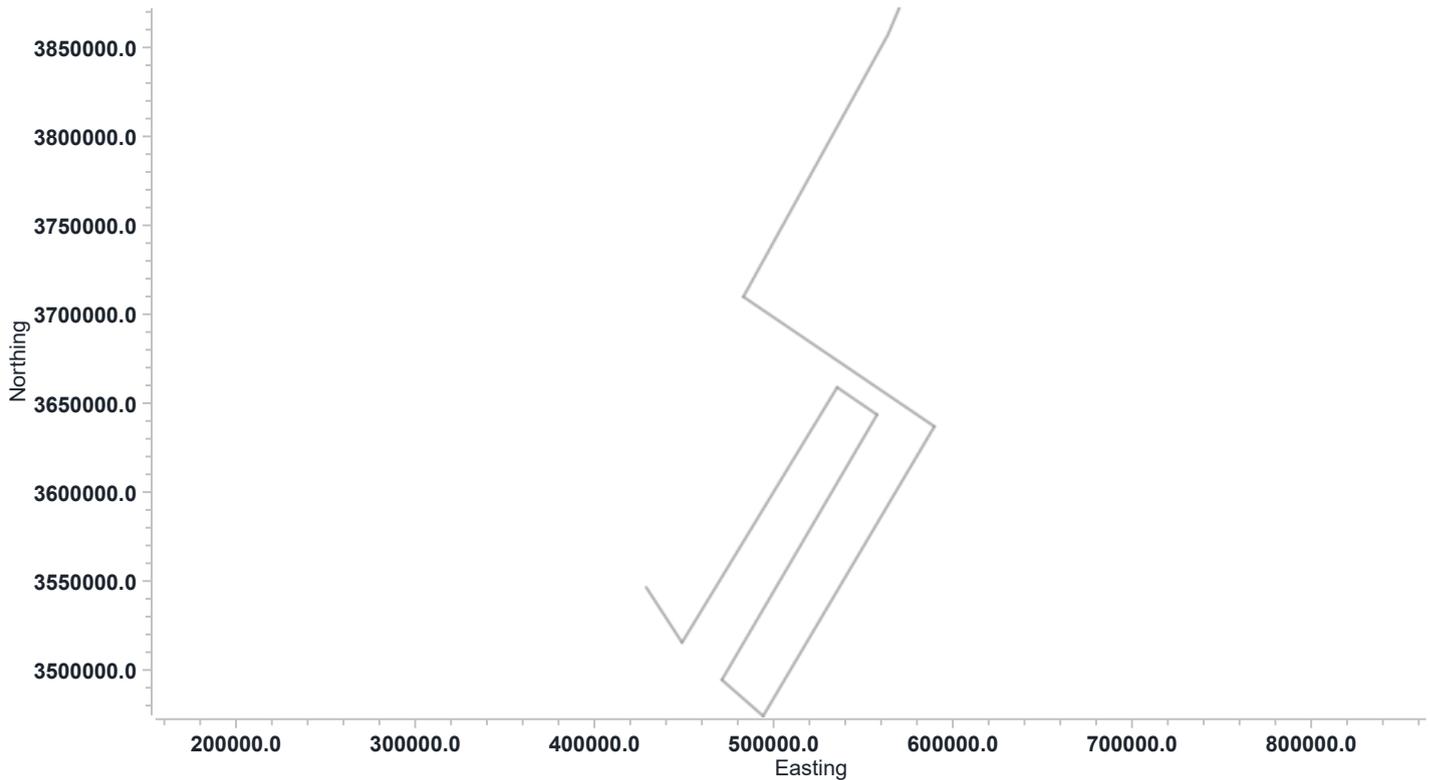
Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accpt km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

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

MGL 2306 Cape Fear: Accpt
5/7/2023 - 5/7/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 07 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

5/7/2023

Page 3

Acquisition (MCS):

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 07 May

Technical Staff On-board the Langseth

Cody Bahlau L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Brian Agee L-DEO OMO Senior Source Mechanic
Ray Hatton - Contract Source Mech
Malcolm Moody - Contract Source Mech
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Riley Lopez L-DEO OMO Marine Science Technician - Obs
James Alan Delong - Contract Source Observer
Koray Ergun - Contract Navigator
Jared Gurslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle -Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster -Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
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5/8/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Mon 08 May

The Science team joined the vessel. It's been a busy day of orientations, planning, meetings and getting settled in. We are working on the most current shooting plan which will have the vessel starting in the North.

Last minute work for the crew to be ready to deploy late on the 9th early 10th.

- Working on gun arrays
- Seal upgrades
- GPS inputs
- Preparing our work areas and setting up monitors.

It looks like we will be read to go by high tide tomorrow.

Daily Comment Summaries - Plan for Tomorrow

Mon 08 May

Sail at high tide.

Depending on which line we will start we will most likely have 10-15 hours before deployment.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	24:00	Mob Ashore	MB_MA	24.000
Mobilizing at Norfolk, Virginia.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

8-May	Hours	% Percent
Mobilisation	24.000	100.000
Mob Ashore	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

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

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					

MCS 6000m					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

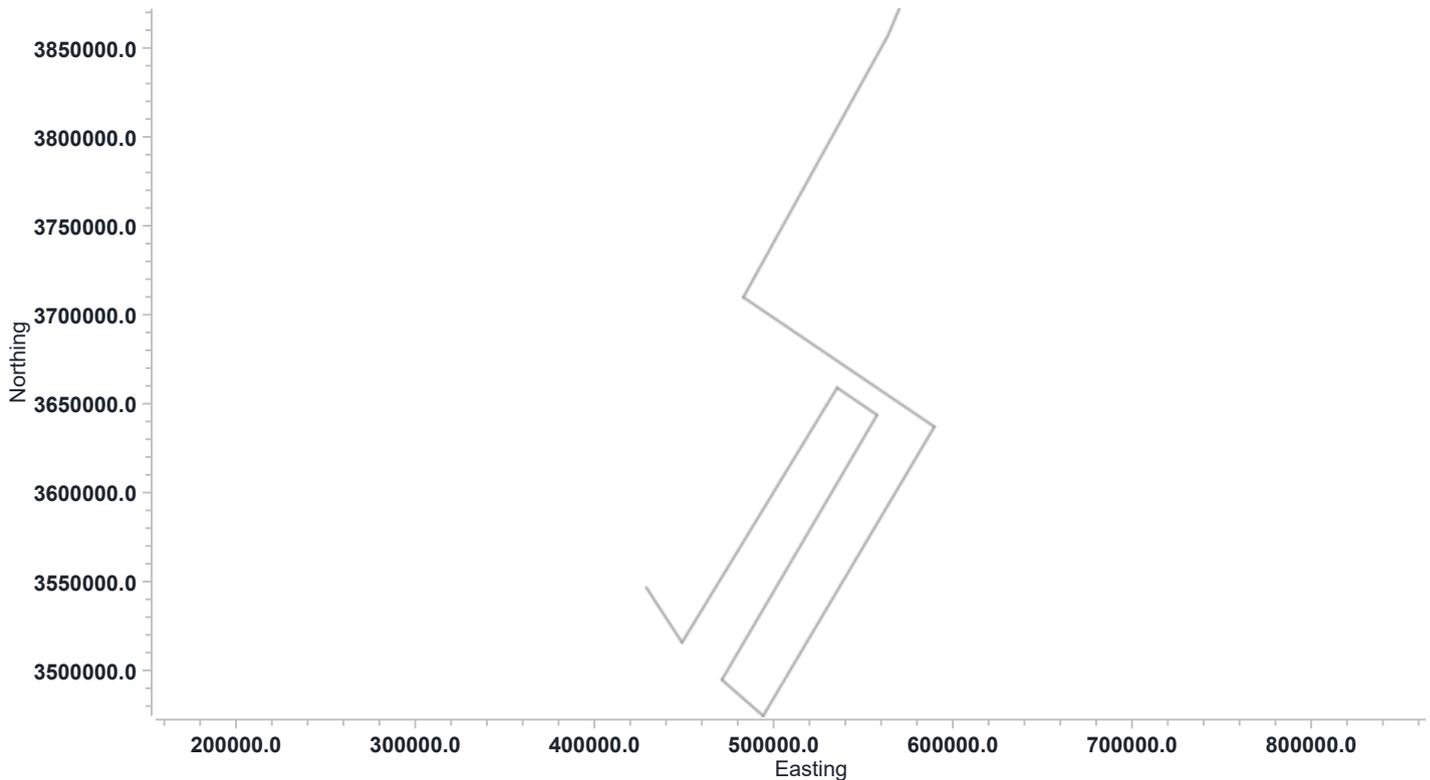
Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accept km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

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

MGL 2306 Cape Fear: Accept
5/8/2023 - 5/8/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 08 May

Navigation:
No Major Issues to Report

5/8/2023

Page 3

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 08 May

Technical Staff On-board the Langseth

Cody Bahlau L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Brian Agee L-DEO OMO Senior Source Mechanic
Ray Hatton - Contract Source Mech
Malcolm Moody - Contract Source Mech
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Riley Lopez L-DEO OMO Marine Science Technician - Obs
James Alan Delong - Contract Source Observer
Koray Ergun - Contract Navigator
Jared Gursslin - MATE Program

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Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle -Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster -Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
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5/9/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Tue 09 May

A very busy day in port completing last minute checks before sailing.
 The TAPU's that the crew were waiting on arrived just before the gangway was removed.
 The vessel sailed for the work area at ~1300 local.
 Several meetings were held today:
 Risk Assessment
 Permit and Operations

Daily Comment Summaries - Plan for Tomorrow

Tue 09 May

Start to Deploy the Streamer

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	17:00	Mob Ashore	MB_MA	17.000
Mobilizing at Norfolk, Virginia.				
17:00	24:00	Transit to Prospect	MB_TT	7.000
In transit to prospect, for mobilizing deployment.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

9-May	Hours	% Percent
Mobilisation	24.000	100.000
Mob Ashore	17.000	70.833
Transit to Prospect	7.000	29.167
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	72.000	100.000
Mob Ashore	65.000	90.278
Transit to Prospect	7.000	9.722
Total	72.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				

MCS 6000m

Cable 1

Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		

Cables 2 - 3

Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		

Source Details

No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

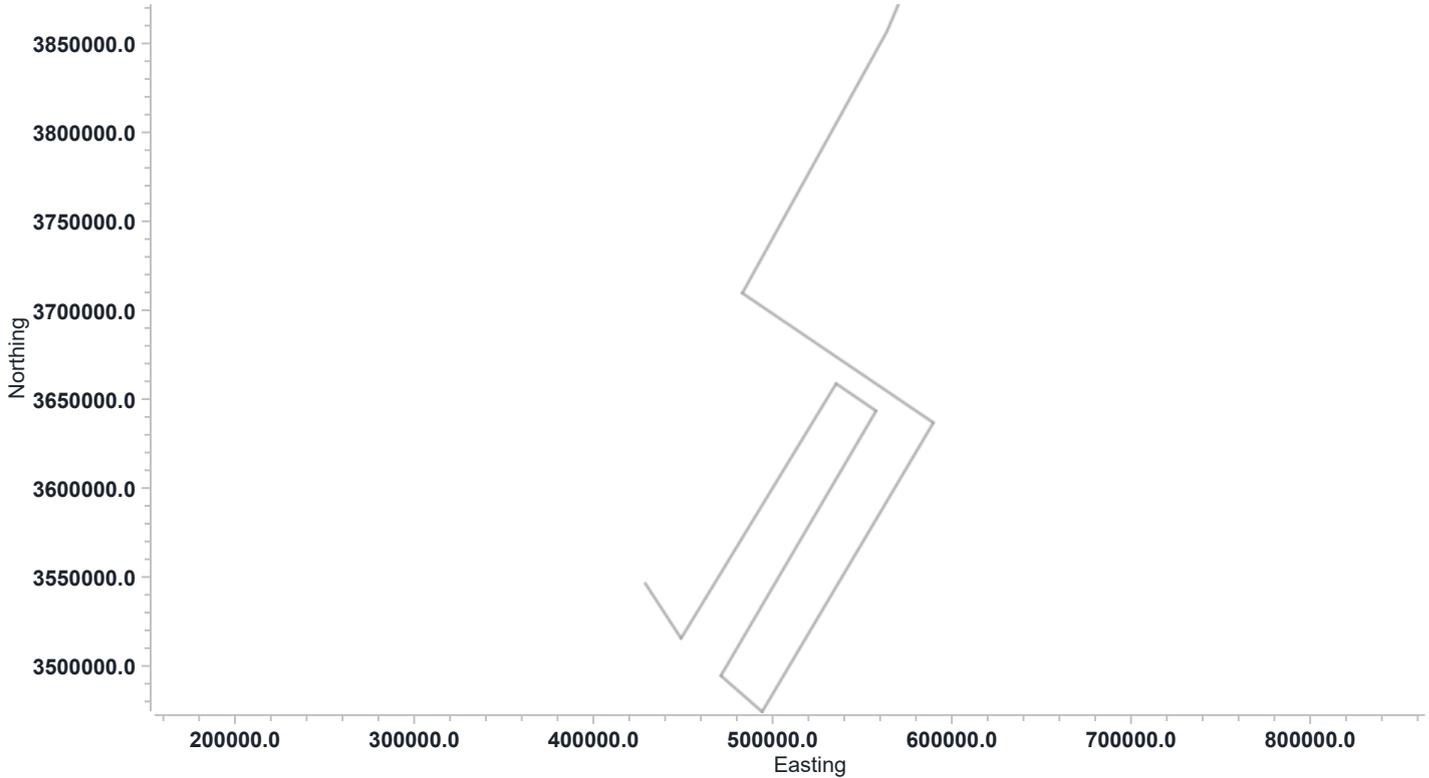
Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accept km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

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

MGL 2306 Cape Fear: Acct
5/9/2023 - 5/9/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 09 May

Navigation:

5/9/2023

Page 3

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 09 May

Technical Staff On-board the Langseth

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James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
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Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
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5/10/2023

Page 1

Client: Lamont-Doherty Earth Observatory
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Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Wed 10 May

Transiting to the Deployment area in the Morning
 Just after 10am utc the tailbuoy was in the water.
 It was a busy day of trouble shooting the tail buoy, Streamer and Seal 2.0 System.
 By the end of the day Seal 2.0 was up and running, the tail buoy is working and the streamer is going out.
 As we suspected we saw some strong currents during deployment.

Daily Comment Summaries - Plan for Tomorrow

Wed 10 May

Continue with Deployment and start Line 01

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	10:06	Transit to Prospect	MB_TT	10.100
In transit to prospect, for mobilizing deployment.				
10:06	24:00	Deployment	MB_DP	13.900
Mobilizing offshore, deploying outboard equipment.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

10-May	Hours	% Percent
Mobilisation	24.000	100.000
Deployment	13.900	57.917
Transit to Prospect	10.100	42.083
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	96.000	100.000
Deployment	13.900	14.479
Mob Ashore	65.000	67.708
Transit to Prospect	17.100	17.813
Total	96.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				

MCS 6000m

Cable 1

Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		

Cables 2 - 3

Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		

Source Details

No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

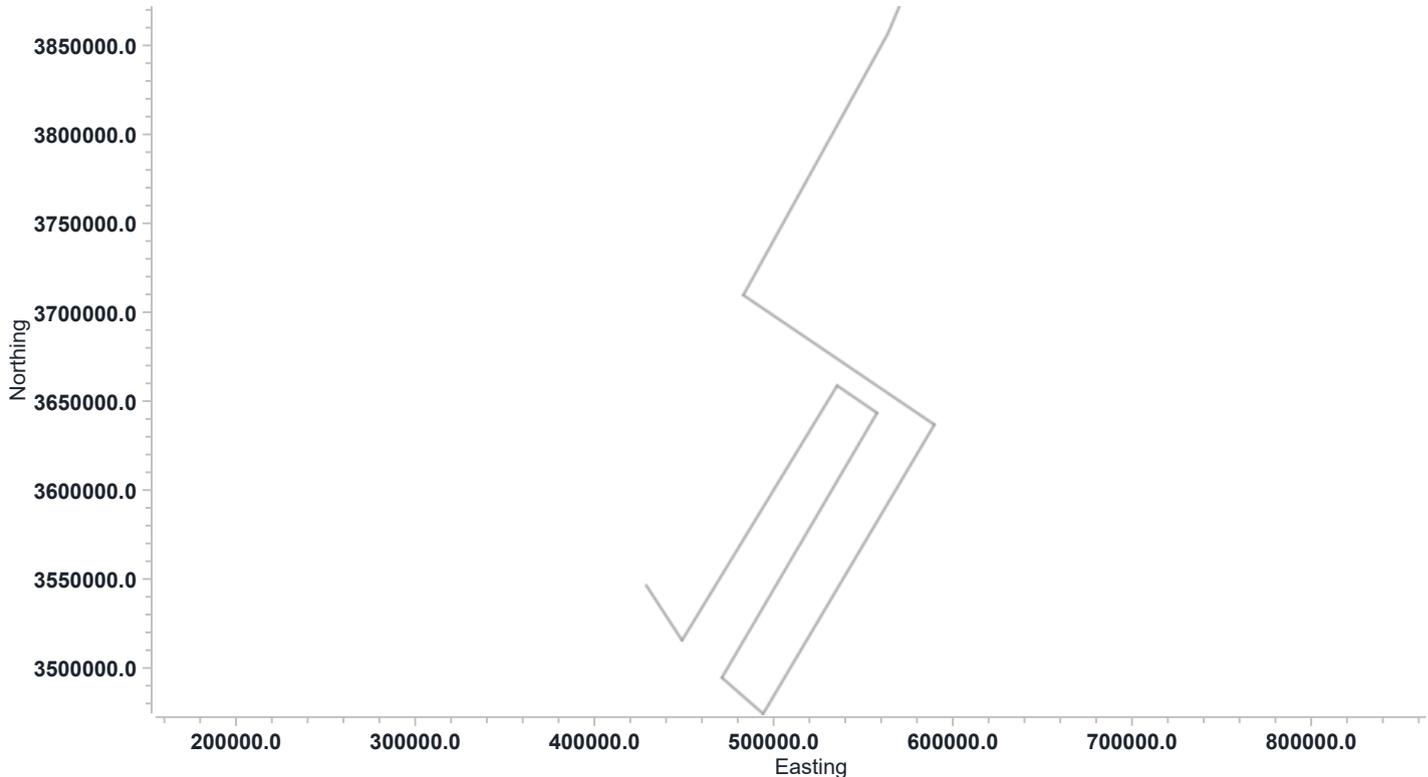
Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accept km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

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

MGL 2306 Cape Fear: Accept
5/10/2023 - 5/10/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 10 May

Navigation:

5/10/2023

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 10 May

Technical Staff On-board the Langseth

Cody Bahlau L-DEO OMO Chief Science Officer
 Josh Kasinger L-DEO OMO Chief Source Mechanic
 Brian Agee L-DEO OMO Senior Source Mechanic
 Ray Hatton - Contract Source Mech
 Malcolm Moody - Contract Source Mech
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 Riley Lopez L-DEO OMO Marine Science Technician - Obs
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 Koray Ergun - Contract Navigator
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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
 Ana Durazo - RPS PSO
 Kristal Mohammed - RPS PSO
 Jo-Ann Sooker - RPS PSO
 Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
 Hugh Daigle - Research scientist Co-PI
 Nathan Miller - Research scientist Co-PI
 C Jo Grall - Research scientist
 Bill Danforth - Research scientist
 Dave Foster - Research scientist
 Wayne Baldwin - Research scientist
 James Gibson - Postdoc
 Ali Mohammed - GRA Student
 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
14:35	15:35	 Fire Drill	Drls_Fi
HSE - Fire Drill			
15:40	16:40	 Abandon Ship Drill	Drls_AS
HSE - Abandon Ship Drill			

5/11/2023

Page 1

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Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Thu 11 May

The crew were deploying and trouble shooting the streamer for the most of the morning. The start of line was missed so the vessel circled back to acquire the start of Preplot 01, as this was a tie line for a previous survey. The start of line went well with little issues and the data so far is looking great!

Daily Comment Summaries - Plan for Tomorrow

Thu 11 May

Finish Line 001 and start Line 002.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	09:59	Deployment	MB_DP	9.983
Mobilizing offshore, deploying outboard equipment.				
09:59	24:00	Production Prime	AC_PP	14.017
Seq: 1 SOL Seq 1 Line:1 FGSP:107 Hdg:202.8° Prime MSP Seq 1 Line:1 LGSP:4984 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

11-May	Hours	% Percent
Acquisition	14.017	58.403
Production Prime	14.017	58.403
Mobilisation	9.983	41.597
Deployment	9.983	41.597
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	88.319
Deployment	23.883	19.903
Mob Ashore	65.000	54.167
Transit to Prospect	17.100	14.250
Acquisition	14.017	11.681
Production Prime	14.017	11.681
Total	120.000	

Basic Project Details

MCS 6000m

General Details

MCS 6000m					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

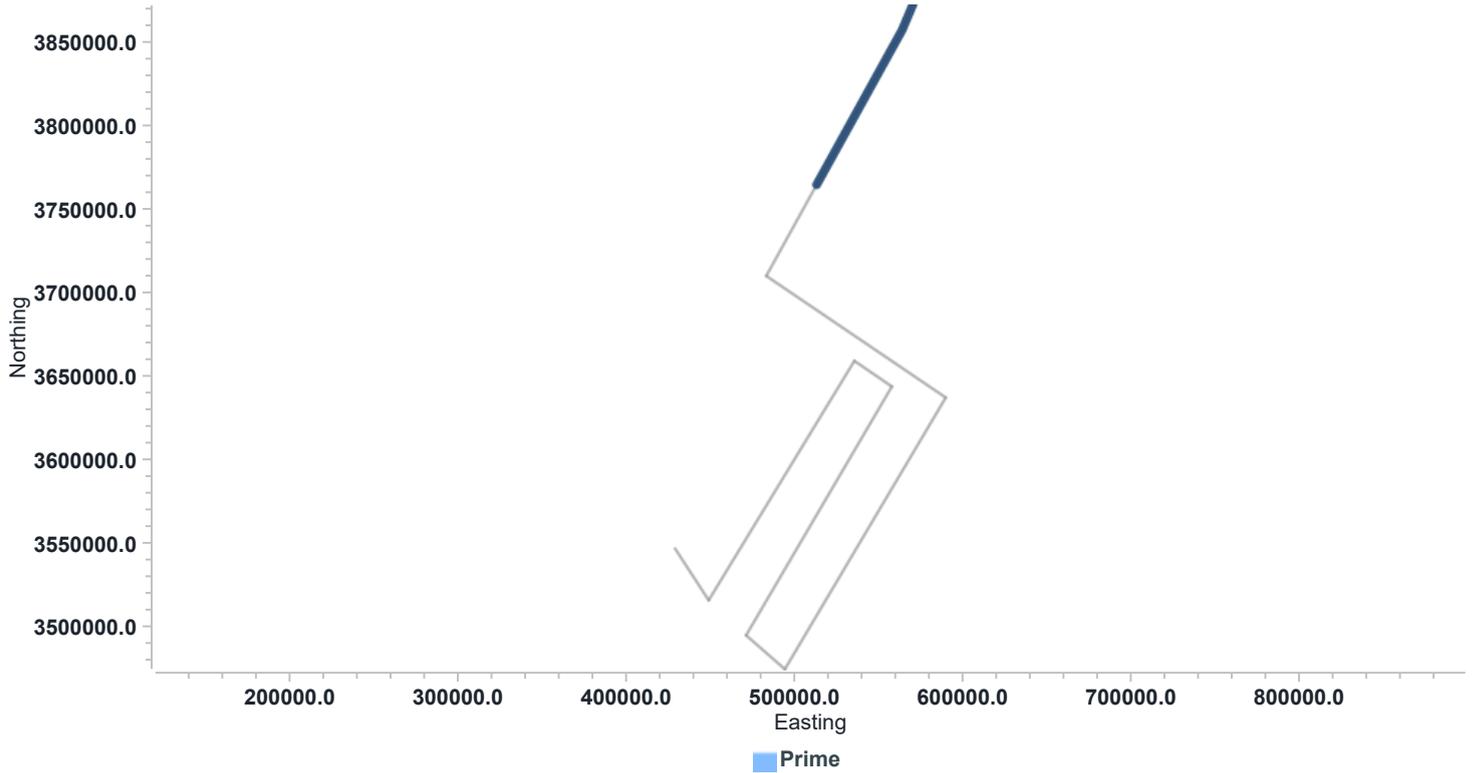
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	1	202.8	1008	5885	Prime	121.95	4.647	Midnight	Part
Total						121.95			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	121.95	121.95	121.95	121.95
Combined	121.95	121.95	121.95	121.95

MGL 2306 Cape Fear: Accpt
5/11/2023 - 5/11/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 11 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 11 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
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- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

5/11/2023

Page 4

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
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Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
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5/12/2023

Page 1

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Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Fri 12 May

At the start of the day the vessel was on Line 01.
 Overall the line has been very good. There are a few gun errors due to some electrical leakage.
 The science team have started to look at the data and it is better than expectations.
 The seal acquisition system is performing well, with the continuous acquisition and real-time cutting of the data.
 At end of day the vessel is on line 3 headed south.

Daily Comment Summaries - Plan for Tomorrow

Fri 12 May

Complete Line 3

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	07:17	■ Production Prime	AC_PP	7.283
Seq: 1 SOL Seq 1 Line:1 FGSP:5886 Hdg:202.8° Prime EOL Seq 1 Line:1 LGSP:8341 Complete				
07:17	07:26	■ Prime Line Change	AC_PLC	0.150
Seq: 1 Line: 1 Nominal Prime line change.				
07:26	21:24	■ Production Prime	AC_PP	13.967
Seq: 2 SOL Seq 2 Line:2 FGSP:8057 Hdg:124.3° Prime EOL Seq 2 Line:2 LGSP:13118 Complete				
21:24	21:37	■ Prime Line Change	AC_PLC	0.217
Seq: 2 Line: 2 Nominal Prime line change.				
21:37	24:00	■ Production Prime	AC_PP	2.383
Seq: 3 SOL Seq 3 Line:3 FGSP:14074 MSP Seq 3 Line:3 Midnight Shot Point 14952				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

12-May	Hours	% Percent
■ Acquisition	24.000	100.000
Prime Line Change	0.367	1.528
Production Prime	23.633	98.472
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	73.600
Deployment	23.883	16.586
Mob Ashore	65.000	45.139
Transit to Prospect	17.100	11.875
Acquisition	38.017	26.400
Prime Line Change	0.367	0.255
Production Prime	37.650	26.146
Total	144.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

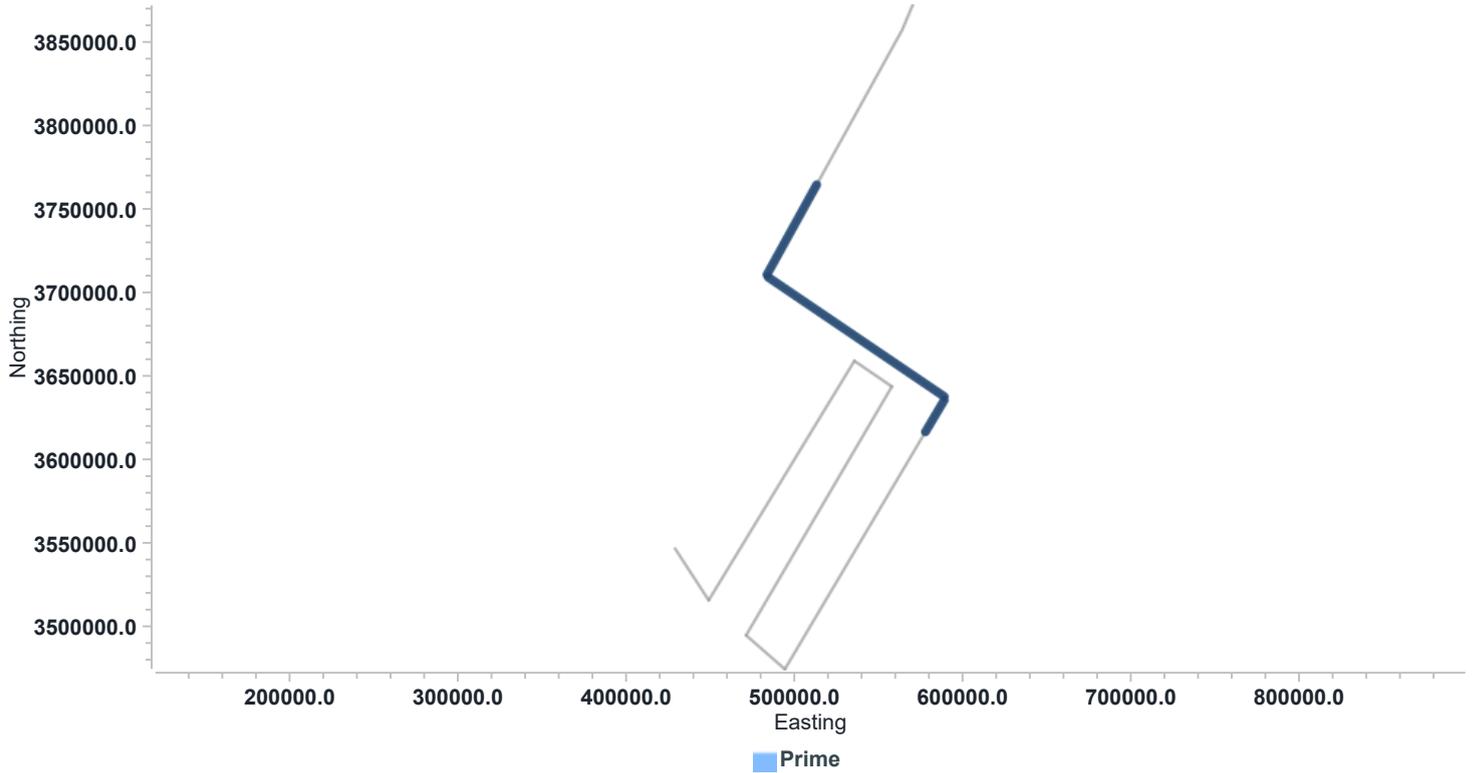
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	1	202.8	5886	8341	Prime	61.40	4.647	Complete	Complete
2	2	124.3	1057	6118	Prime	126.55	4.892	Complete	Complete
3	3	210.5	1074	1952	Prime	21.98	4.011	Midnight	Part
Total						209.93			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	209.93	331.88	331.88	331.88
Combined	209.93	331.88	331.88	331.88

MGL 2306 Cape Fear: Acppt
5/12/2023 - 5/12/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 12 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 12 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

5/12/2023

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Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle -Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster -Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:10	17:10	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting to discuss Ops			

5/13/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sat 13 May

During line 3 the source arrays had multiple problems which facilitated recovery of the arrays. This is potentially due to the leadin coming in contact with the arrays during higher speeds and/or on turns. The leadin was recovered and weight applied 200 meters from the leadin termination. The vessel will reduce to 4.5 kts through the water on the turns.

Daily Comment Summaries - Plan for Tomorrow

Sat 13 May

Complete line 3 and start line 4.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	17:52	■ Production Prime	AC_PP	17.867
Seq: 3 SOL Seq 3 Line:3 FGSP:14952 Hdg:210.5° Prime EOL Seq 3 Line:3 LGSP:20092 Complete				
17:52	21:12	■ Towing Source	DT_TA	3.333
Downtime due to source and Leadin.				
21:12	24:00	■ Production Prime	AC_PP	2.800
Seq: 4 SOL Seq 4 Line:3 FGSP:20579 210.5° Prime MSP Seq 4 Line:3 LGSP:21249 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

13-May	Hours	% Percent
Acquisition	20.667	86.111
Production Prime	20.667	86.111
DownTime	3.333	13.889
Towing Source	3.333	13.889
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	63.085
Deployment	23.883	14.216
Mob Ashore	65.000	38.690
Transit to Prospect	17.100	10.179
Acquisition	58.683	34.931
Prime Line Change	0.367	0.218
Production Prime	58.317	34.712

Category	Hours	% Percent
DownTime	3.333	1.984
Towing Source	3.333	1.984
Total	168.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

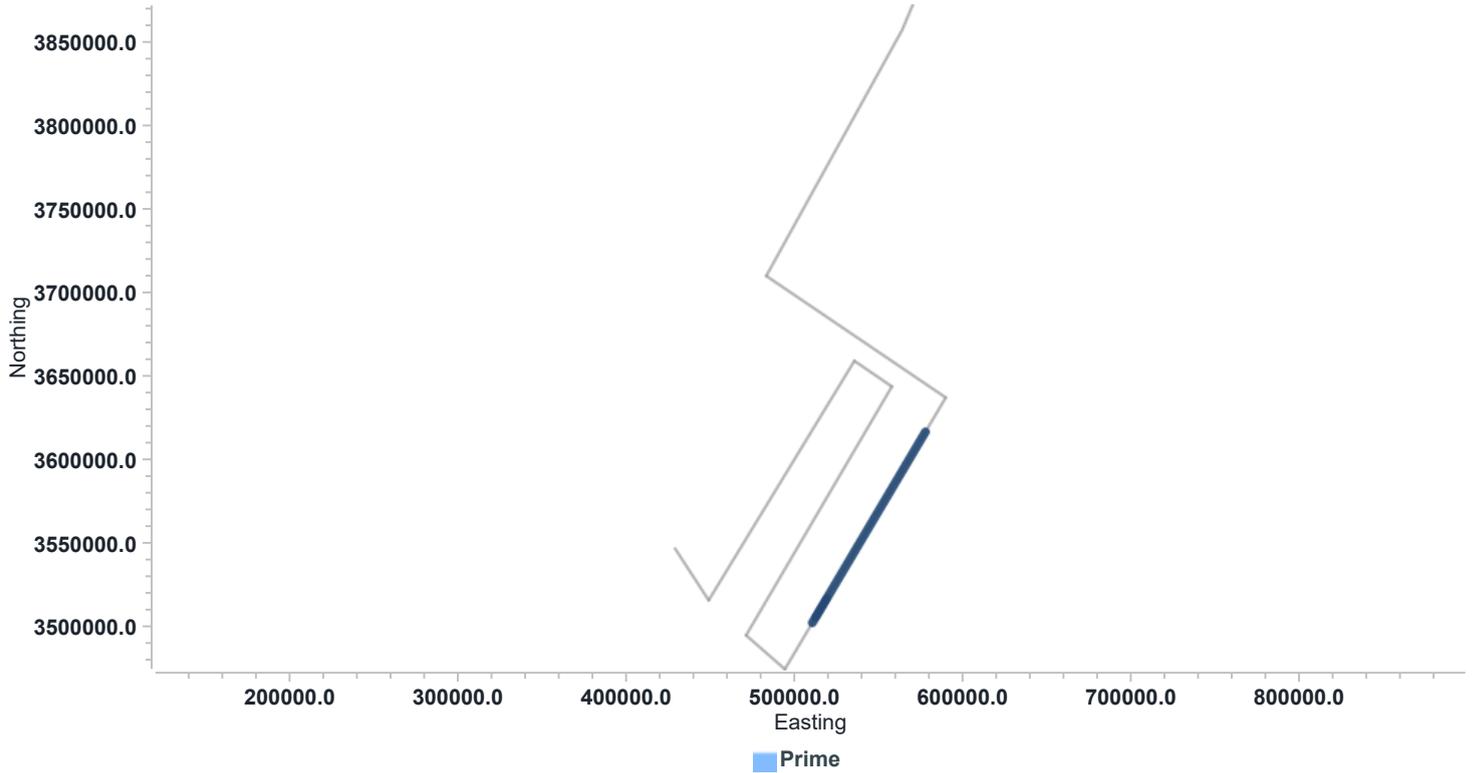
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
3	3	210.5	1953	7091	Prime	128.47	4.011	Complete	Complete
4	3	210.5	6578	7248	Prime	16.78	3.777	Midnight	Part
Total						145.25			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	145.25	477.13	477.13	477.13
Combined	145.25	477.13	477.13	477.13

MGL 2306 Cape Fear: Acctpt
5/13/2023 - 5/13/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 13 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 13 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

5/13/2023

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Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
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5/14/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sun 14 May

Acquiring MCS data:
 Completed line 3
 Started and Completed Line 4
 At end of day the vessel is 2 hours from completing line 5.

Recovered array 2 for auto-fires.

Daily Comment Summaries - Plan for Tomorrow

Sun 14 May

Finish line 5, 6 and start line 7.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	04:02	Production Prime	AC_PP	4.033
Seq: 4 SOL Seq 4 Line:3 FGSP:21249 Hdg:210.5° Prime EOL Seq 4 Line:3 LGSP:22491 Complete				
04:02	04:08	Prime Line Change	AC_PLC	0.100
Seq: 4 Line: 3 Nominal Prime line change.				
04:08	07:35	Production Prime	AC_PP	3.450
Seq: 5 SOL Seq 5 Line:4 FGSP:23066 Hdg:311.3° Prime EOL Seq 5 Line:4 LGSP:24207 Complete				
07:35	07:46	Prime Line Change	AC_PLC	0.183
Seq: 5 Line: 4 Nominal Prime line change.				
07:46	24:00	Production Prime	AC_PP	16.233
Seq: 6 SOL Seq 6 Line:5 FGSP:25087 Hdg:30.2° Prime MSP Seq 6 Line:5 LGSP:31376 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

14-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.283	1.181
Production Prime	23.717	98.819
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	55.200
Deployment	23.883	12.439
Mob Ashore	65.000	33.854
Transit to Prospect	17.100	8.906
Acquisition	82.683	43.064
Prime Line Change	0.650	0.339
Production Prime	82.033	42.726
DownTime	3.333	1.736
Towing Source	3.333	1.736
Total	192.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

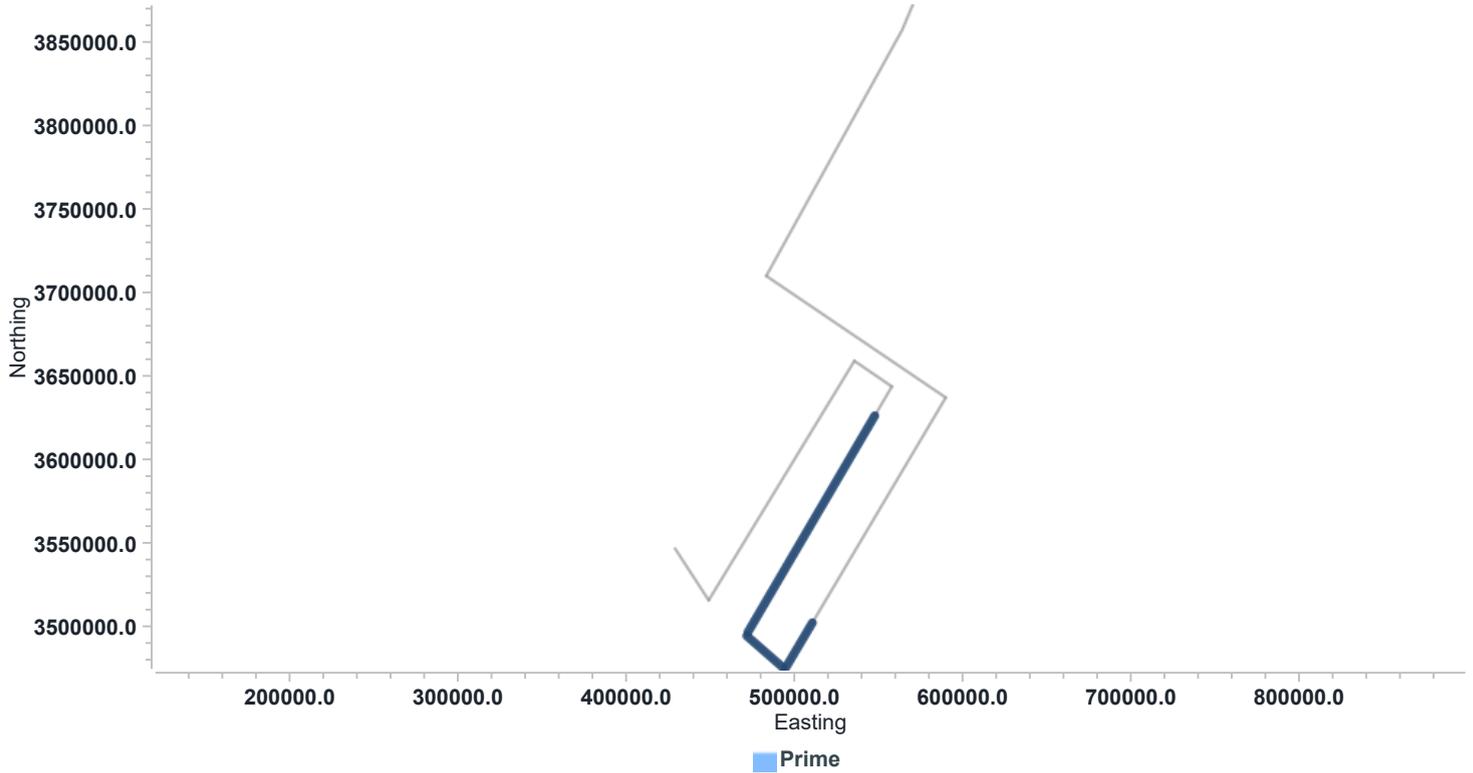
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
4	3	210.5	7249	8490	Prime	31.05	3.777	Complete	Complete
5	4	311.3	1065	2206	Prime	28.55	4.464	Complete	Complete
6	5	30.2	1086	7075	Prime	149.75	4.980	Midnight	Part
Total						209.35			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	209.35	686.48	686.48	686.48
Combined	209.35	686.48	686.48	686.48

MGL 2306 Cape Fear: Acctpt
5/14/2023 - 5/14/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 14 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 14 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

5/14/2023

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Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
14:15	15:15	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/15/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Mon 15 May

Acquiring MCS data:
 Completed line 5
 Started and Completed Line 6
 Started line 7, at the end of day ~6 hours until completion.

Array 2 was on deck for trouble shooting during the morning. This has since been deployed and all the gun arrays are looking good.
 The weather picked up slightly this afternoon, 1.5 - 2 meter seas. Swell noise can be seen on the data.

Daily Comment Summaries - Plan for Tomorrow

Mon 15 May

Finish Line 7, 8 and start line 9.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	03:03	Production Prime	AC_PP	3.050
Seq: 6 SOL Seq 6 Line:5 FGSP: 25087 Hdg:30.2° Prime EOL Seq 6 Line:5 LGSP: 31839 Complete				
03:03	03:18	Prime Line Change	AC_PLC	0.250
Seq: 6 Line: 5 Nominal Prime line change.				
03:18	07:33	Production Prime	AC_PP	4.250
Seq: 7 SOL Seq 7 Line:6 FGSP:32042 Hdg:304.6° Prime EOL Seq 7 Line:6 LGSP:33030 Complete				
07:33	07:44	Prime Line Change	AC_PLC	0.183
Seq: 7 Line: 6 Nominal Prime line change.				
07:44	24:00	Production Prime	AC_PP	16.267
Seq: 8 SOL Seq 8 Line:7 FGSP:33560 Hdg:211.2° Prime MSP Seq 8 Line:7 LGSP:38796 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

15-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.433	1.806

5/15/2023

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15-May	Hours	% Percent
Production Prime	23.567	98.194
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	49.066
Deployment	23.883	11.057
Mob Ashore	65.000	30.093
Transit to Prospect	17.100	7.917
Acquisition	106.683	49.390
Prime Line Change	1.083	0.502
Production Prime	105.600	48.889
DownTime	3.333	1.543
Towing Source	3.333	1.543
Total	216.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Acpt km by Shotpoint) - Full Fold

MCS 6000m

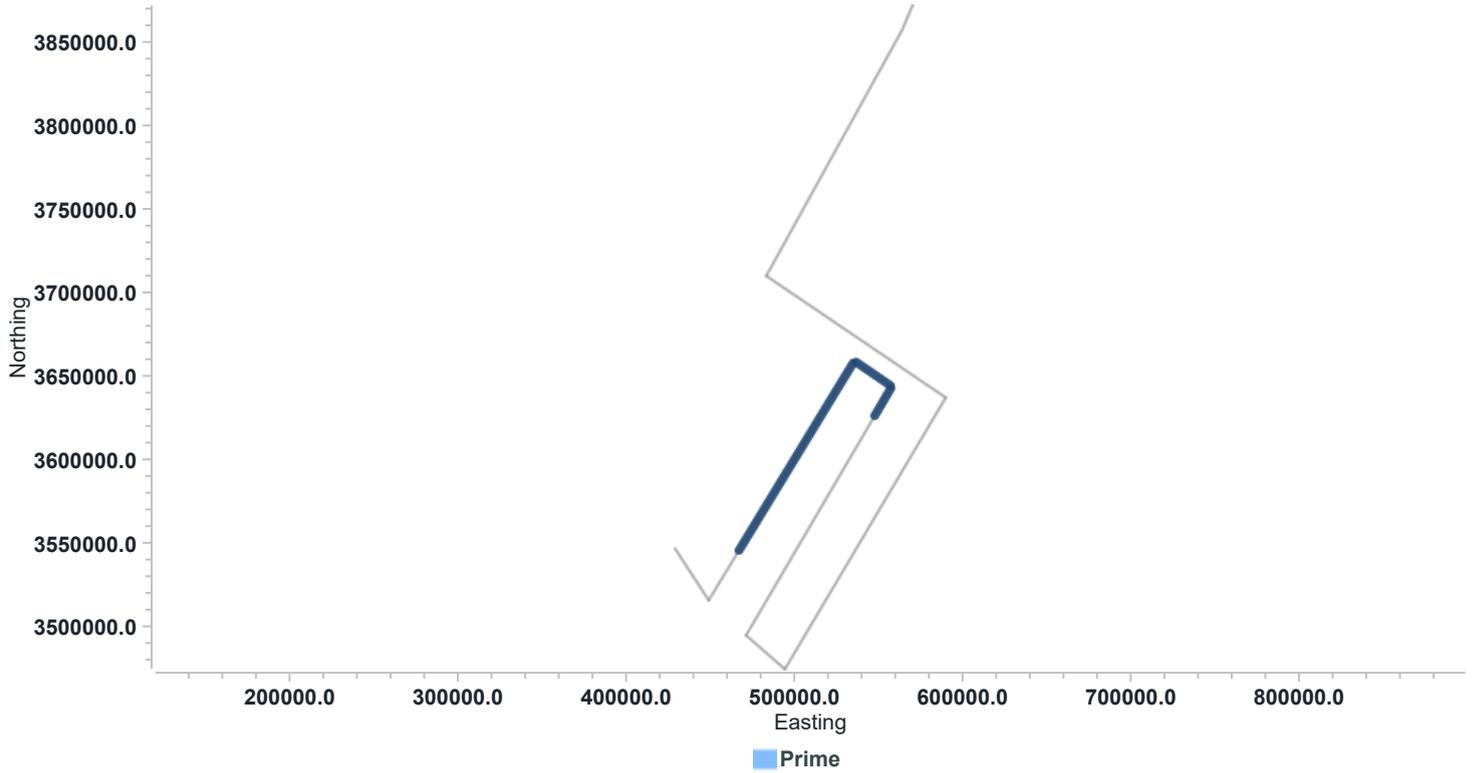
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
6	5	30.2	7076	7838	Prime	19.07	4.727	Complete	Complete
7	6	304.6	1041	2029	Prime	24.73	3.138	Complete	Complete
8	7	211.2	1060	6297	Prime	130.95	4.346	Midnight	Part
Total						174.75			

Production Totals (Acpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	174.75	174.75	861.23	861.23
Combined	174.75	174.75	861.23	861.23

MGL 2306 Cape Fear: Acctpt
5/15/2023 - 5/15/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 15 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 15 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

5/15/2023

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle -Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster -Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:00	17:00	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/16/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Tue 16 May

A good day of production.

Acquiring MCS data:
 Completed line 7.
 Started and Completed Line 8.
 Started line 9, at the end of day ~2 hours until completion.

At the start of line 8 there were compressor issues on the stbd compressor.
 The Engineering team started up the port compressor and the guns were ramped back up.

At the start of Line 9 there was a turtle shutdown.

Daily Comment Summaries - Plan for Tomorrow

Tue 16 May

Finish Line 9, 10 and start 11.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	05:02	Production Prime	AC_PP	5.033
Seq: 8 SOL Seq 8 Line:7 FGSP: 33560 Hdg:211.2° Prime EOL Seq 8 Line:7 LGSP: 40348 Complete				
05:02	06:43	Prime Line Change	AC_PLC	1.683
Seq: 8 Line: 7 Nominal Prime line change. Extended Line change due to Run Out / Run In Request				
06:43	12:35	Production Prime	AC_PP	5.867
Seq: 9 SOL Seq 9 Line:8 FGSP: 41720 Hdg:327.1° Prime EOL Seq 9 Line:8 LGSP: 43455 Complete				
12:35	12:50	Infill Line Change	AC_ILC	0.250
Seq: 9 Nominal Infill line change.				
12:50	24:00	Production Prime	AC_PP	11.167
Seq: 10 SOL Seq 10 Line:9 FGSP:44067 Hdg:31.8° Prime MSP Seq 10 Line:9 LGSP:47845 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

16-May	Hours	% Percent
Acquisition	24.000	100.000
Infill Line Change	0.250	1.042

5/16/2023

Page 2

16-May	Hours	% Percent
Prime Line Change	1.683	7.014
Production Prime	22.067	91.944
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	44.160
Deployment	23.883	9.951
Mob Ashore	65.000	27.083
Transit to Prospect	17.100	7.125
Acquisition	130.683	54.451
Infill Line Change	0.250	0.104
Prime Line Change	2.767	1.153
Production Prime	127.667	53.194
DownTime	3.333	1.389
Towing Source	3.333	1.389
Total	240.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

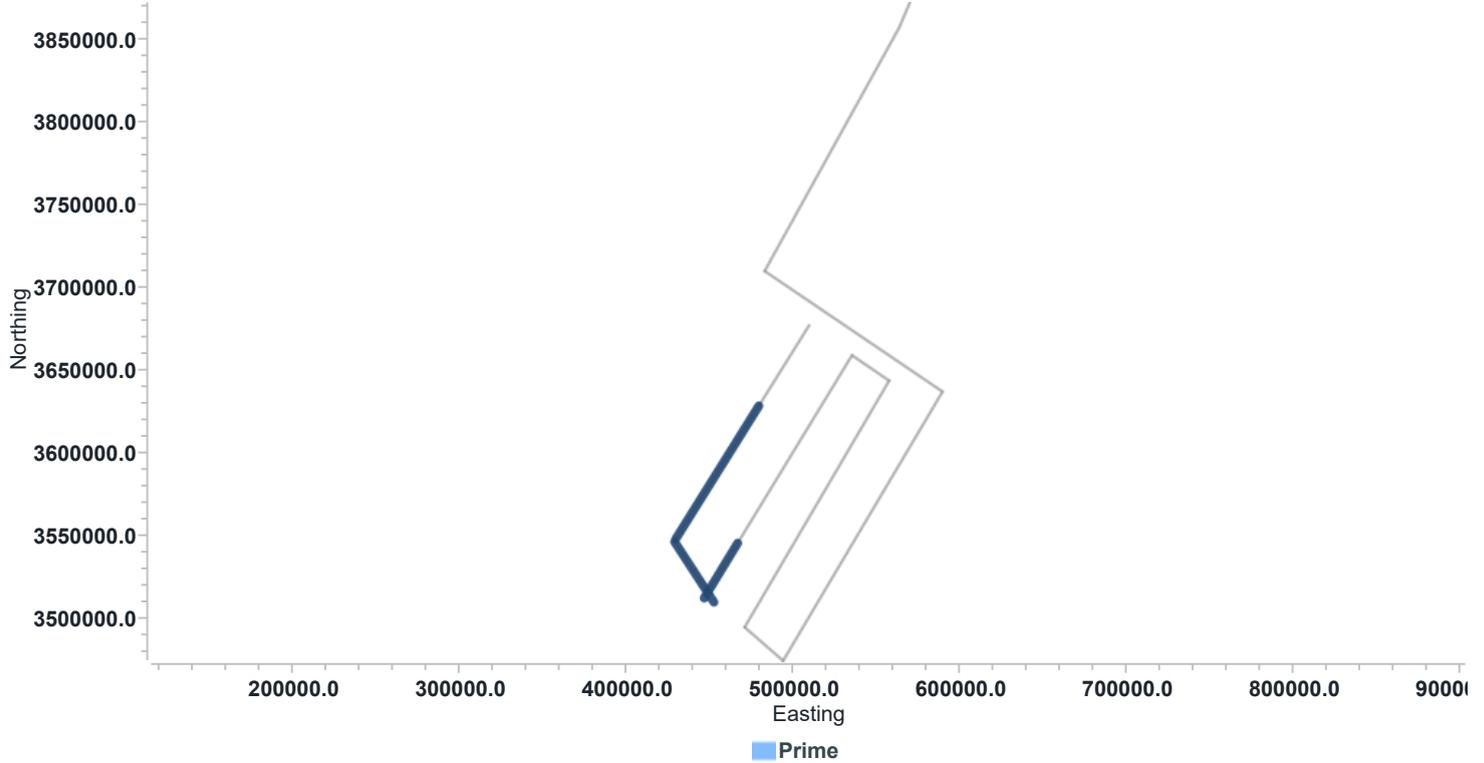
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
8	7	211.2	6298	7849	Prime	38.80	4.303	Complete	Complete
9	8	327.1	721	2456	Prime	43.40	3.992	Complete	Complete
10	9	31.8	1068	4846	Prime	94.48	4.567	Midnight	Part
Total						176.68			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	176.68	351.43	1037.90	1037.90
Combined	176.68	351.43	1037.90	1037.90

MGL 2306 Cape Fear: Accpt
5/16/2023 - 5/16/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 16 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 16 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer

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Koray Ergun - Contract Navigator
Jared Gurslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:10	17:10	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

Daily Total Category	Code	Count
 Task, Hazard, Control	Re_Con_THC	2
Galley did a good job		
Water flooding port side of back deck		

5/17/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Wed 17 May

Acquiring MCS data:
 Completed line 9
 Started and Completed Line 10.
 Started line 11, at the end of day ~4 hours until completion.

During Line 11, Array 2 was recovered due to gun 4 autofires.

A new shooting order/plan was sent out today which should enable the vessel to acquire the western lines in a North South direction.

Daily Comment Summaries - Plan for Tomorrow

Wed 17 May

Complete Lines 11, 12 and start Line 13.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	06:05	Production Prime	AC_PP	6.083
Seq: 10 SOL Seq 10 Line:9 FGSP: 44067 Hdg:31.8° Prime EOL Seq 10 Line:9 LGSP: 50080 Complete				
06:05	06:19	Prime Line Change	AC_PLC	0.233
Seq: 10 Line: 9 Nominal Prime line change.				
06:19	11:03	Production Prime	AC_PP	4.733
Seq: 11 SOL Seq 11 Line:10 FGSP: 50563 Hdg:304.1° Prime EOL Seq 11 Line:10 LGSP: 52010 Complete				
11:03	11:13	Prime Line Change	AC_PLC	0.167
Seq: 11 Line: 10 Nominal Prime line change.				
11:13	24:00	Production Prime	AC_PP	12.783
Seq: 12 SOL Seq 12 Line:11 FGSP:52538 Hdg:210.7° Prime MSP Seq 12 Line:11 LGSP:56453 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

17-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.400	1.667

5/17/2023

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17-May	Hours	% Percent
Production Prime	23.600	98.333
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	40.145
Deployment	23.883	9.047
Mob Ashore	65.000	24.621
Transit to Prospect	17.100	6.477
Acquisition	154.683	58.592
Infill Line Change	0.250	0.095
Prime Line Change	3.167	1.199
Production Prime	151.267	57.298
DownTime	3.333	1.263
Towing Source	3.333	1.263
Total	264.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
10	9	31.8	4847	7081	Prime	55.88	4.705	Complete	Complete
11	10	304.1	1064	2511	Prime	36.20	4.127	Complete	Complete
12	11	210.7	1039	4954	Prime	97.90	4.134	Midnight	Part
Total						189.98			

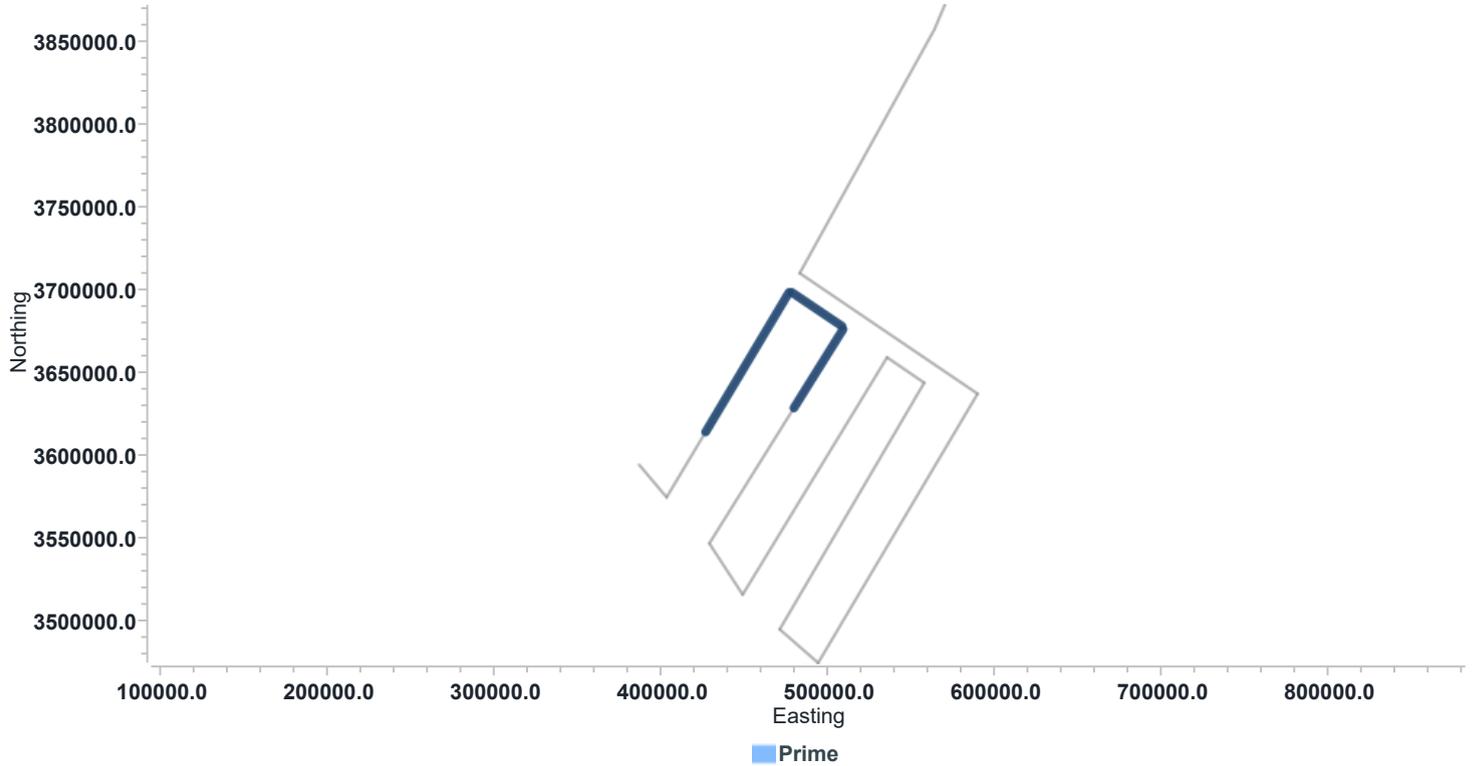
Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	189.98	541.40	1227.88	1227.88

Accepted km	Day	Week	Month	Project
Combined	189.98	541.40	1227.88	1227.88

MGL 2306 Cape Fear: Accpt
5/17/2023 - 5/17/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 17 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 17 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator

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Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO

Ana Durazo - RPS PSO

Kristal Mohammed - RPS PSO

Jo-Ann Sooker - RPS PSO

Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI

Hugh Daigle - Research scientist Co-PI

Nathan Miller - Research scientist Co-PI

C Jo Grall - Research scientist

Bill Danforth - Research scientist

Dave Foster - Research scientist

Wayne Baldwin - Research scientist

James Gibson - Postdoc

Ali Mohammed - GRA Student

Mason Farnsworth - GRA Student

Tanner Acquisto - GRA Student

Emma Le Gall - Ms Student

Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:05	17:05	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/18/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Thu 18 May

Acquiring MCS data:
 Completed line 11
 Started and Completed Line 12.
 Started line 13, at the end of day ~1 hour until completion.

During line 13 the weather picked up considerably. The streamer was on surface at around 9am local. The team was able to get it back down deep and the rest of the line was acquired at 10 meter streamer depth.

A new shooting order/plan was sent out today which should enable us to use up some of the inclement weather time in the north on non-high priority lines.

Daily Comment Summaries - Plan for Tomorrow

Thu 18 May

Complete Lines 13, 15, 15 and start Line 16.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	04:48	Production Prime	AC_PP	4.800
Seq: 12 SOL Seq 12 Line:11 FGSP:56454 Hdg:210.7° Prime EOL Seq 12 Line:11 LGSP:58121 Complete				
04:48	04:58	Prime Line Change	AC_PLC	0.167
Seq: 12 Line: 11 Nominal Prime line change.				
04:58	07:40	Production Prime	AC_PP	2.700
Seq: 13 SOL Seq 13 Line:12 FGSP:58577 Hdg:320° Prime EOL Seq 13 Line:12 LGSP:59508 Complete				
07:40	07:52	Prime Line Change	AC_PLC	0.200
Seq: 13 Line: 12 Nominal Prime line change.				
07:52	24:00	Production Prime	AC_PP	16.133
Seq: 14 SOL Seq 14 Line:13 FGSP:60076 Hdg:27° Prime MSP Seq 14 Line:13 LGSP:6801 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

18-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.367	1.528

5/18/2023

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18-May	Hours	% Percent
Production Prime	23.633	98.472
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	36.800
Deployment	23.883	8.293
Mob Ashore	65.000	22.569
Transit to Prospect	17.100	5.938
Acquisition	178.683	62.043
Infill Line Change	0.250	0.087
Prime Line Change	3.533	1.227
Production Prime	174.900	60.729
DownTime	3.333	1.157
Towing Source	3.333	1.157
Total	288.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

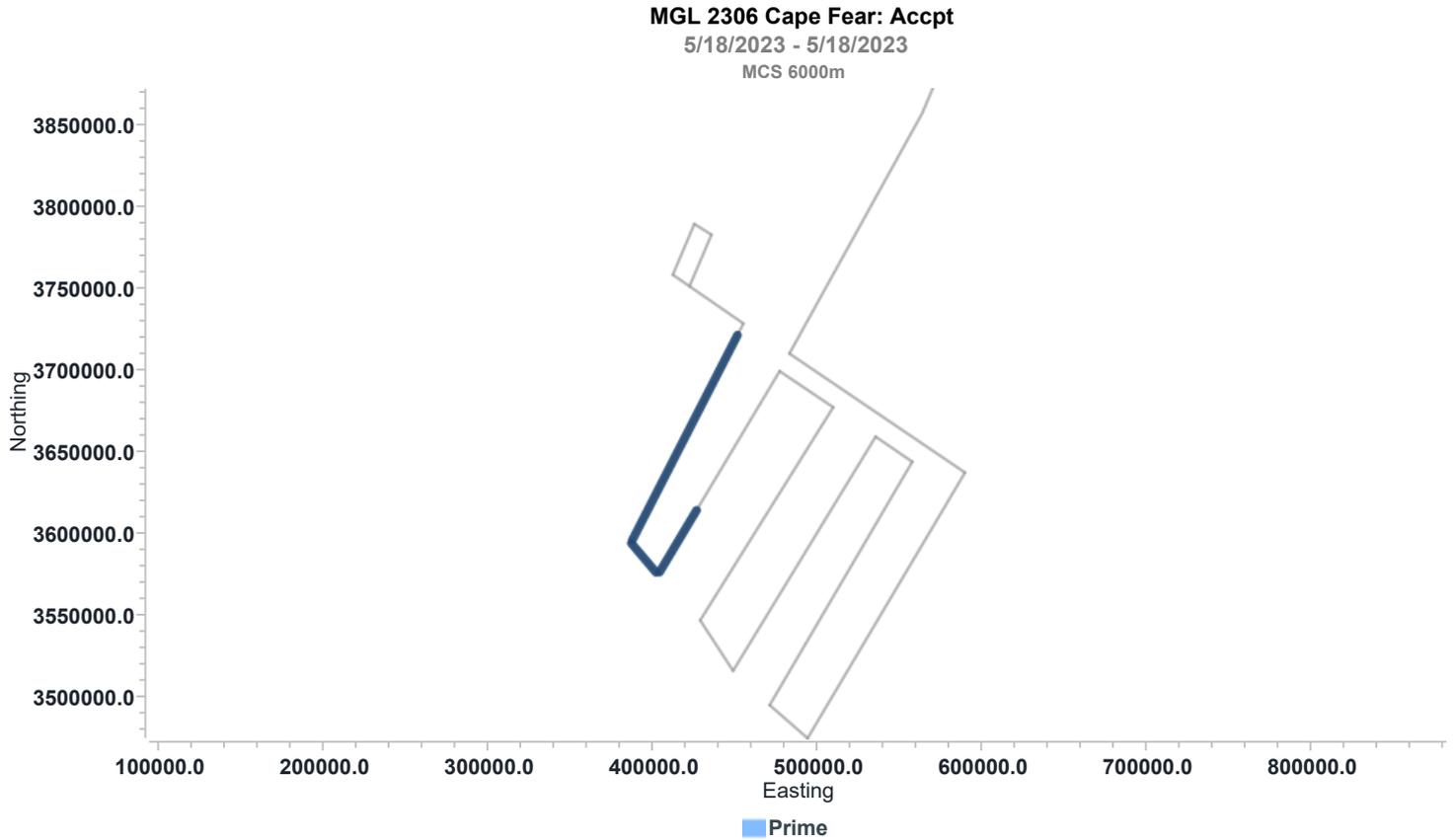
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
12	11	210.7	4955	6713	Prime	43.98	4.356	Complete	Complete
13	12	320.0	1078	2009	Prime	23.30	4.655	Complete	Complete
14	13	27.0	1077	6696	Prime	140.50	4.701	Midnight	Part
Total						207.78			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	207.78	749.17	1435.65	1435.65

Accepted km	Day	Week	Month	Project
Combined	207.78	749.17	1435.65	1435.65



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 18 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 18 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator

5/18/2023

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Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO

Ana Durazo - RPS PSO

Kristal Mohammed - RPS PSO

Jo-Ann Sooker - RPS PSO

Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI

Hugh Daigle - Research scientist Co-PI

Nathan Miller - Research scientist Co-PI

C Jo Grall - Research scientist

Bill Danforth - Research scientist

Dave Foster - Research scientist

Wayne Baldwin - Research scientist

James Gibson - Postdoc

Ali Mohammed - GRA Student

Mason Farnsworth - GRA Student

Tanner Acquisto - GRA Student

Emma Le Gall - Ms Student

Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:05	17:05	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/19/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Fri 19 May

Acquiring MCS data:
 Completed line 13, 14, 15, 16 and 17.
 The weather was marginal for all lines.

Started to recover guns and streamer for trouble shooting the tailbuoy.

Daily Comment Summaries - Plan for Tomorrow

Fri 19 May

Continue with streamer trouble shooting.

Reacquire line 14 and start line 19.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	00:55	Production Prime	AC_PP	0.917
Seq: 14 SOL Seq 14 Line:13 FGSP: 60076 Hdg:27° Prime EOL Seq 14 Line:13 LGSP: 65994 Complete				
00:55	01:03	Prime Line Change	AC_PLC	0.133
Seq: 14 Line: 13 Nominal Prime line change.				
01:03	06:54	Production Prime	AC_PP	5.850
Seq: 15 SOL Seq 15 Line:14 FGSP:67076 Hdg:304.8° Prime EOL Seq 15 Line:14 LGSP:69070 Complete				
06:54	07:09	Prime Line Change	AC_PLC	0.250
Seq: 15 Line: 14 Nominal Prime line change.				
07:09	09:43	Production Prime	AC_PP	2.567
Seq: 16 SOL Seq 16 Line:15 FGSP:69632 Hdg:22.8° Prime EOL Seq 16 Line:15 LGSP:70797 Complete				
09:43	09:57	Prime Line Change	AC_PLC	0.233
Seq: 16 Line: 15 Nominal Prime line change.				
09:57	11:17	Production Prime	AC_PP	1.333
Seq: 17 SOL Seq 17 Line:16 FGSP:71105 Hdg:122.1° Prime EOL Seq 17 Line:16 LGSP:71450 Complete				

Start	End	Category	Code	Duration (hrs)
11:17	11:38	■ Prime Line Change	AC_PLC	0.350
Seq: 17 Line: 16 Nominal Prime line change.				
11:38	19:52	■ Production Prime	AC_PP	8.233
Seq: 19 SOL Seq 19 Line:17 FGSP:72044 Hdg:202.9° Prime EOL Seq 19 Line:17 LGSP:73370 Complete				
19:52	24:00	■ Nav Systems In-Sea	DT_NI	4.133
Downtime due to in sea navigation systems. Failed Tailbuoy Full gun and streamer recovery.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

19-May	Hours	% Percent
Acquisition	19.867	82.778
Prime Line Change	0.967	4.028
Production Prime	18.900	78.750
DownTime	4.133	17.222
Nav Systems In-Sea	4.133	17.222
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	33.969
Deployment	23.883	7.655
Mob Ashore	65.000	20.833
Transit to Prospect	17.100	5.481
Acquisition	198.550	63.638
Infill Line Change	0.250	0.080
Prime Line Change	4.500	1.442
Production Prime	193.800	62.115
DownTime	7.467	2.393
Nav Systems In-Sea	4.133	1.325
Towing Source	3.333	1.068
Total	312.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m

MCS 6000m					
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

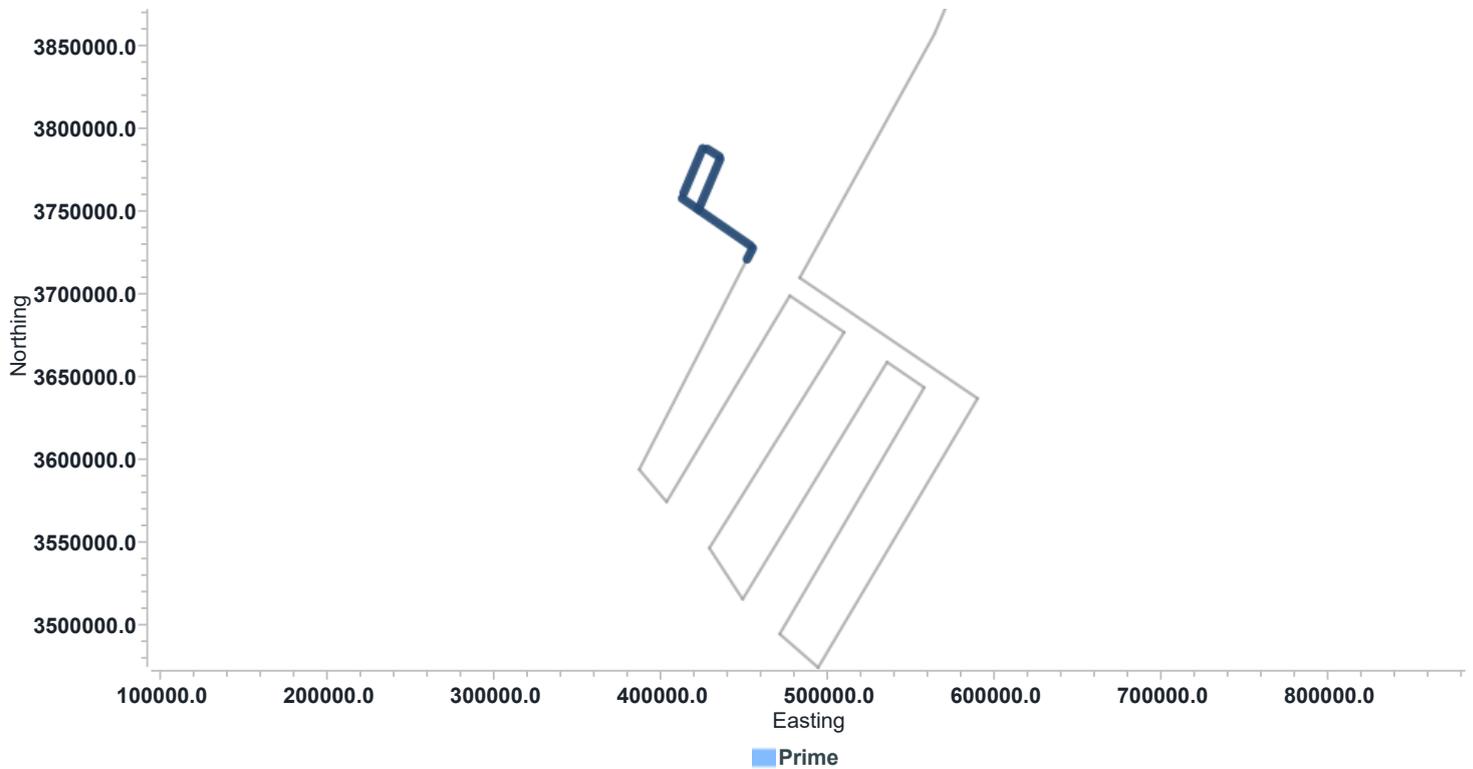
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
14	13	27.0	6697	6995	Prime	7.48	4.685	Complete	Complete
15	14	304.8	1077	3071	Prime	49.88	4.601	Complete	Complete
16	15	22.8	1133	2298	Prime	29.15	6.127	Complete	Complete
17	16	122.1	1106	1451	Prime	8.65	3.493	Complete	Complete
19	17	202.9	1045	2371	Prime	33.18	2.174	Complete	Complete
Total						128.33			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	128.33	877.50	1563.98	1563.98
Combined	128.33	877.50	1563.98	1563.98

MGL 2306 Cape Fear: Accpt
5/19/2023 - 5/19/2023
MCS 6000m



5/19/2023

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Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 19 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 19 May

Technical Staff On-board the Langseth

Cody Bahlau L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic
Brian Agee L-DEO OMO Senior Source Mechanic
Ray Hatton - Contract Source Mech
Malcolm Moody - Contract Source Mech
Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Riley Lopez L-DEO OMO Marine Science Technician - Obs
James Alan Delong - Contract Source Observer
Koray Ergun - Contract Navigator
Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start

End

Category

Code

5/20/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sat 20 May

Completed the streamer and gun maintenance.

Started acquiring data on the eastern end of Line 14. This was a reshoot of Seq 15 for poor weather. During line 14 we experienced an extreme feather angle. Recovered array 1 for an air leak.



Daily Comment Summaries - Plan for Tomorrow

Sat 20 May

Complete Line 14 and start line 19

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	12:54	Nav Systems In-Sea	DT_NI	12.900
Downtime due to in sea navigation systems. Failed Tailbuoy				
Full gun and streamer recovery.				
12:54	24:00	Production Prime	AC_PP	11.100
Seq: 20 SOL Seq 20 Line:14 FGSP:74000 Hdg:304.8° Prime				

5/20/2023

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Start	End	Category	Code	Duration (hrs)
MSP Seq 20 Line:14 LGSP:76188 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

20-May	Hours	% Percent
Acquisition	11.100	46.250
Production Prime	11.100	46.250
DownTime	12.900	53.750
Nav Systems In-Sea	12.900	53.750
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Mobilisation	105.983	31.543
Deployment	23.883	7.108
Mob Ashore	65.000	19.345
Transit to Prospect	17.100	5.089
Acquisition	209.650	62.396
Infill Line Change	0.250	0.074
Prime Line Change	4.500	1.339
Production Prime	204.900	60.982
DownTime	20.367	6.062
Nav Systems In-Sea	17.033	5.069
Towing Source	3.333	0.992
Total	336.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept km by Shotpoint) - Full Fold

MCS 6000m

5/20/2023

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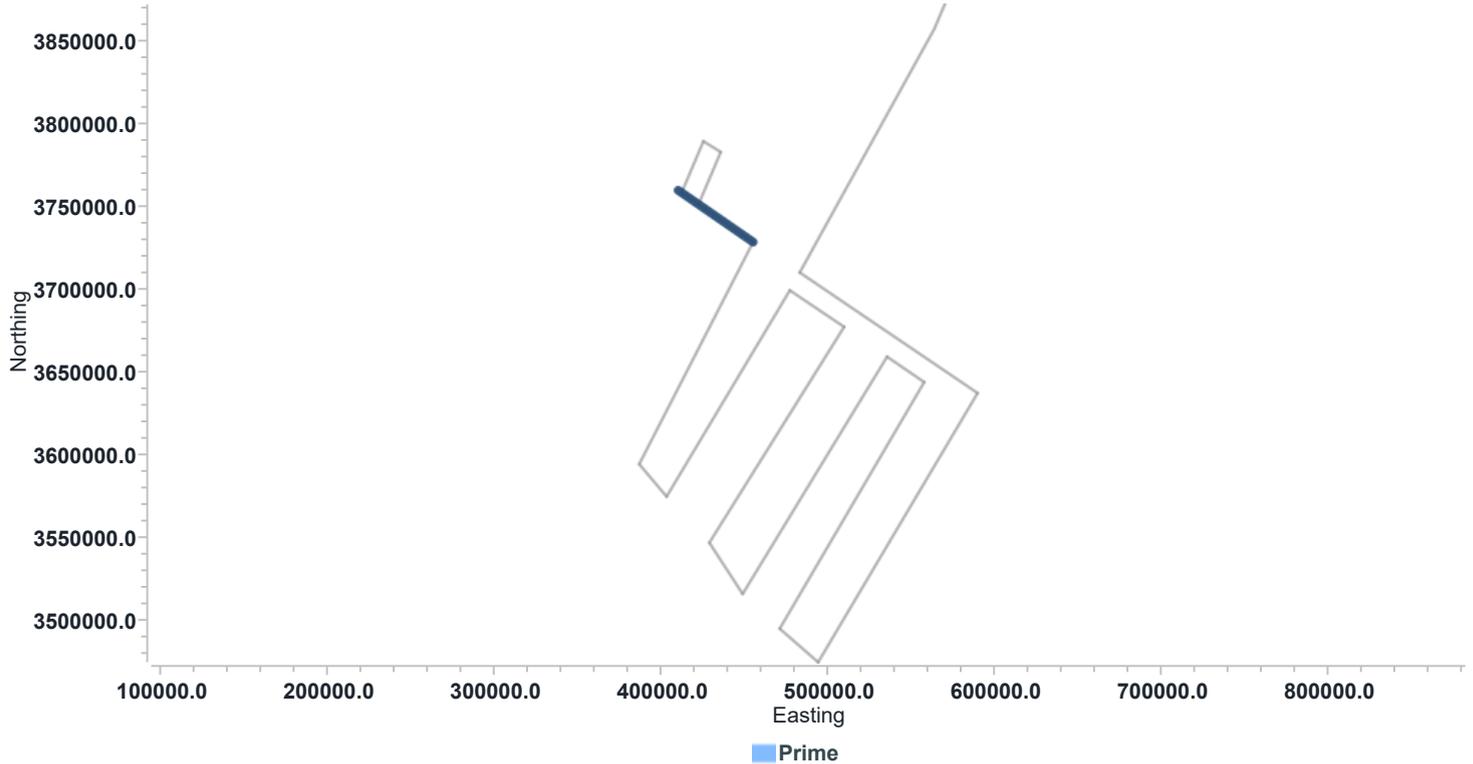
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
20	14	304.8	1001	3189	Prime	54.73	2.661	Midnight	Part
Total						54.73			

Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	54.73	932.22	1618.70	1618.70
Combined	54.73	932.22	1618.70	1618.70

MGL 2306 Cape Fear: Accpt
5/20/2023 - 5/20/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 20 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 20 May

Technical Staff On-board the Langseth

5/20/2023

Page 4

Cody Bahlau L-DEO OMO Chief Science Officer
 Josh Kasinger L-DEO OMO Chief Source Mechanic
 Brian Agee L-DEO OMO Senior Source Mechanic
 Ray Hatton - Contract Source Mech
 Malcolm Moody - Contract Source Mech
 Gilles Guerin L-DEO OMO Marine Science Technician - Obs
 Riley Lopez L-DEO OMO Marine Science Technician - Obs
 James Alan Delong - Contract Source Observer
 Koray Ergun - Contract Navigator
 Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
 Ana Durazo - RPS PSO
 Kristal Mohammed - RPS PSO
 Jo-Ann Sooker - RPS PSO
 Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
 Hugh Daigle -Research scientist Co-PI
 Nathan Miller - Research scientist Co-PI
 C Jo Grall - Research scientist
 Bill Danforth - Research scientist
 Dave Foster -Research scientist
 Wayne Baldwin - Research scientist
 James Gibson - Postdoc
 Ali Mohammed - GRA Student
 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:15	17:15	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/21/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sun 21 May

At the start of the day the vessel was on line 14 headed Northwest.
 The currents increased to the point where the vessel could no longer make positive headway down line.
 The bridge was seeing +5kts currents in the gulf stream.
 The decision was made to move east to line 17 and acquire that headed south to line 20

Daily Comment Summaries - Plan for Tomorrow

Sun 21 May

Continue acquiring data on line 17

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	00:53	Production Prime	AC_PP	0.883
Seq: 20 SOL Seq 20 Line:14 FGSP: 74000 Hdg:304.8° Prime EOL Seq 20 Line:14 LGSP: 76250 Complete				
00:53	01:01	Prime Line Change	AC_PLC	0.133
Seq: 20 Line: 14 Nominal Prime line change.				
01:01	02:05	Production Prime	AC_PP	1.067
Seq: 21 SOL Seq 21 Line:14 FGSP:80130 Hdg:304.8° Prime EOL Seq 21 Line:14 LGSP:82263 Complete				
02:05	07:00	Currents and Tides	NC_TD	4.917
Strong Currents forced the vessel to abort line 19, and head east to line 17 heading south.				
07:00	22:17	Production Prime	AC_PP	15.283
Seq: 22 SOL Seq 22 Line:17 FGSP:83041 Hdg:202.9° Prime EOL Seq 22 Line:17 LGSP:83576 Complete				
22:17	22:24	Prime Line Change	AC_PLC	0.117
Seq: 22 Line: 17 Nominal Prime line change.				
22:24	24:00	Production Prime	AC_PP	1.600
Seq: 23 SOL Seq 23 Line:20 FGSP:84045 Hdg:110.1° Prime MSP Seq 23 Line:20 LGSP:84417 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

5/21/2023

Page 2

21-May	Hours	% Percent
Acquisition	19.083	79.514
Prime Line Change	0.250	1.042
Production Prime	18.833	78.472
Non-Chargeable StandBy	4.917	20.486
Currents and Tides	4.917	20.486
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	4.917	1.366
Currents and Tides	4.917	1.366
Mobilisation	105.983	29.440
Deployment	23.883	6.634
Mob Ashore	65.000	18.056
Transit to Prospect	17.100	4.750
Acquisition	228.733	63.537
Infill Line Change	0.250	0.069
Prime Line Change	4.750	1.319
Production Prime	223.733	62.148
DownTime	20.367	5.657
Nav Systems In-Sea	17.033	4.731
Towing Source	3.333	0.926
Total	360.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
20	14	304.8	3190	3251	Prime	1.55	2.535	Complete	Complete

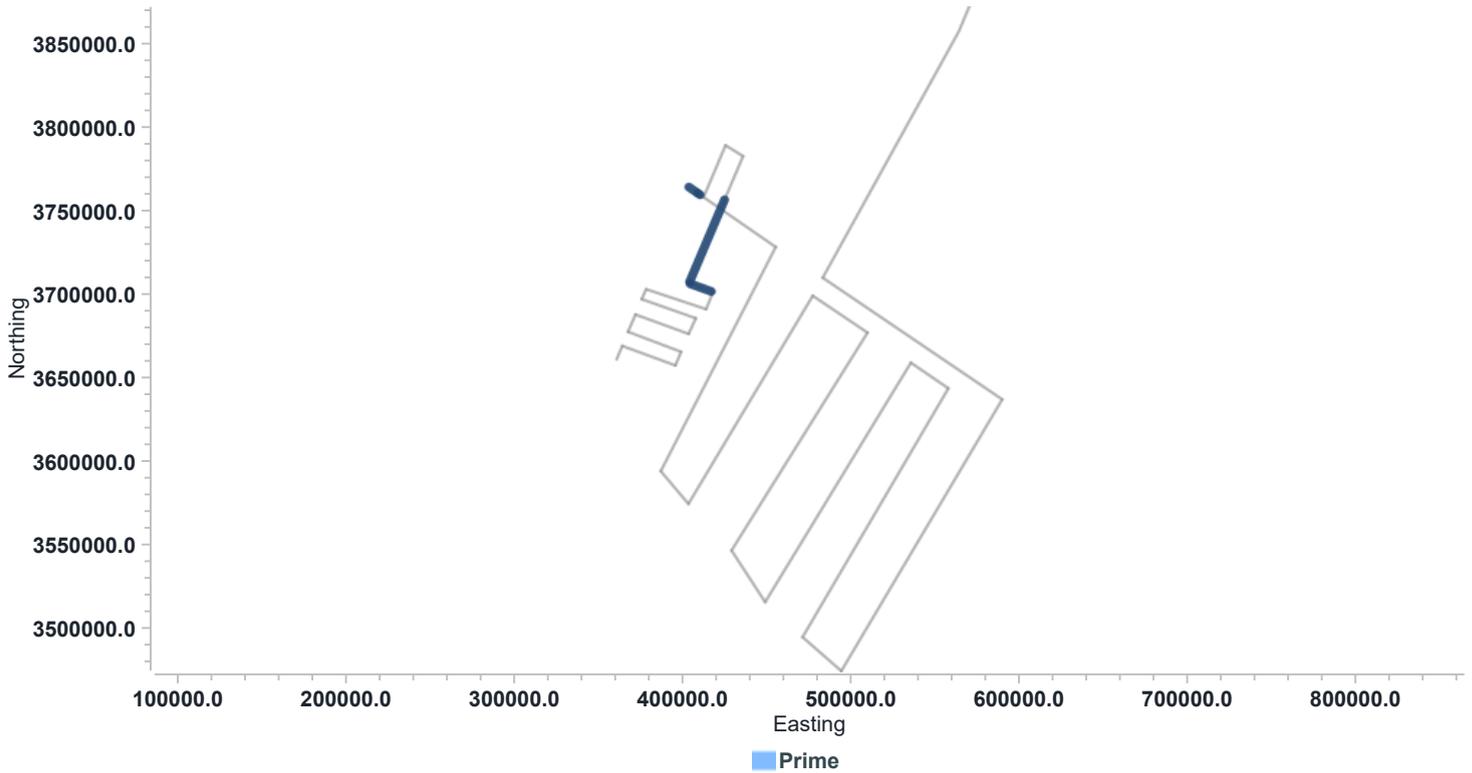
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
21	14	304.8	3251	3514	Prime	6.60	3.328	Complete	Complete
22	17	202.9	2131	4264	Prime	53.35	1.884	Complete	Complete
23	20	110.1	1042	1576	Prime	13.38	4.467	Midnight	Part
Total						74.88			

Production Totals (Accept km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	74.88	1007.10	1693.58	1693.58
Combined	74.88	1007.10	1693.58	1693.58

MGL 2306 Cape Fear: Accpt
5/21/2023 - 5/21/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 21 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 21 May

Technical Staff On-board the Langseth

Cody Bahlau L-DEO OMO Chief Science Officer
 Josh Kasinger L-DEO OMO Chief Source Mechanic
 Brian Agee L-DEO OMO Senior Source Mechanic
 Ray Hatton - Contract Source Mech
 Malcolm Moody - Contract Source Mech
 Gilles Guerin L-DEO OMO Marine Science Technician - Obs
 Riley Lopez L-DEO OMO Marine Science Technician - Obs
 James Alan Delong - Contract Source Observer
 Koray Ergun - Contract Navigator
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 Kristal Mohammed - RPS PSO
 Jo-Ann Sooker - RPS PSO
 Shelby Tobin - RPS PSO

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 Bill Danforth - Research scientist
 Dave Foster -Research scientist
 Wayne Baldwin - Research scientist
 James Gibson - Postdoc
 Ali Mohammed - GRA Student
 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:10	17:10	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/22/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Mon 22 May

The vessel has seen good ground speed over the last 24 hours.
 The decision to move to line 20 in the hopes the acquisition was just out of the gulf stream was the correct way to go.
 The vessel is currently acquiring the dip lines from North to South.

Daily Comment Summaries - Plan for Tomorrow

Mon 22 May

Continue with the Dip lines

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	00:01	Production Prime	AC_PP	0.017
Seq: 23 SOL Seq 23 Line:20 Block:MGL 2306 Cape Fear FGSP:1577 Hdg:110.1° Prime EOL Seq 23 Line:20 Block:MGL 2306 Cape Fear LGSP:1577 Complete				
00:01	00:05	Prime Line Change	AC_PLC	0.067
Seq: 23 Line: 20 Nominal Prime line change.				
00:05	01:56	Production Prime	AC_PP	1.850
Seq: 24 SOL Seq 24 Line:21 FGSP:84045 Hdg:202.3° Prime EOL Seq 24 Line:21 LGSP:84417 Complete				
01:56	02:05	Prime Line Change	AC_PLC	0.150
Seq: 24 Line: 21 Nominal Prime line change.				
02:05	06:47	Production Prime	AC_PP	4.700
Seq: 25 SOL Seq 25 Line:22 FGSP:85064 Hdg:288.5° Prime EOL Seq 25 Line:22 LGSP:86465 Complete				
06:47	06:55	Prime Line Change	AC_PLC	0.133
Seq: 25 Line: 22 Nominal Prime line change.				
06:55	08:07	Production Prime	AC_PP	1.200
Seq: 26 SOL Seq 26 Line:23 FGSP:87029 Hdg:204° Prime EOL Seq 26 Line:23 LGSP:87203 Complete				
08:07	08:21	Prime Line Change	AC_PLC	0.233

Start	End	Category	Code	Duration (hrs)
Seq: 26 Line: 23 Nominal Prime line change.				
08:21	12:49	Production Prime	AC_PP	4.467
Seq: 27 SOL Seq 27 Line:24 FGSP: 87537 Hdg:109.6° Prime EOL Seq 27 Line:24 LGSP: 88811 Complete				
12:49	13:09	Prime Line Change	AC_PLC	0.333
Seq: 27 Line: 24 Nominal Prime line change.				
13:09	14:57	Production Prime	AC_PP	1.800
Seq: 28 SOL Seq 28 Line:25 FGSP:89065 Hdg:204.4° Prime EOL Seq 28 Line:25 LGSP:89383 Complete				
14:57	15:13	Prime Line Change	AC_PLC	0.267
Seq: 28 Line: 25 Nominal Prime line change.				
15:13	19:34	Production Prime	AC_PP	4.350
Seq: 29 SOL Seq 29 Line:26 FGSP:90095 Hdg:290.1° Prime EOL Seq 29 Line:26 LGSP:91298 Complete				
19:34	19:42	Prime Line Change	AC_PLC	0.133
Seq: 29 Line: 26 Nominal Prime line change.				
19:42	21:17	Production Prime	AC_PP	1.583
Seq: 30 SOL Seq 30 Line:27 FGSP:92030 Hdg:203.3° Prime EOL Seq 30 Line:27 LGSP:92398 Complete				
21:17	21:25	Prime Line Change	AC_PLC	0.133
Seq: 30 Line: 27 Nominal Prime line change.				
21:25	24:00	Production Prime	AC_PP	2.583
Seq: 31 SOL Seq 31 Line:28 FGSP:93040 FCSP:N/A Hdg:110.8° Prime MSP Seq 31 Line:28 LGSP:93924 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

22-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	1.450	6.042
Production Prime	22.550	93.958
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	4.917	1.280
Currents and Tides	4.917	1.280
Mobilisation	105.983	27.600
Deployment	23.883	6.220
Mob Ashore	65.000	16.927
Transit to Prospect	17.100	4.453
Acquisition	252.733	65.816
Infill Line Change	0.250	0.065
Prime Line Change	6.200	1.615
Production Prime	246.283	64.136
DownTime	20.367	5.304
Nav Systems In-Sea	17.033	4.436
Towing Source	3.333	0.868
Total	384.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

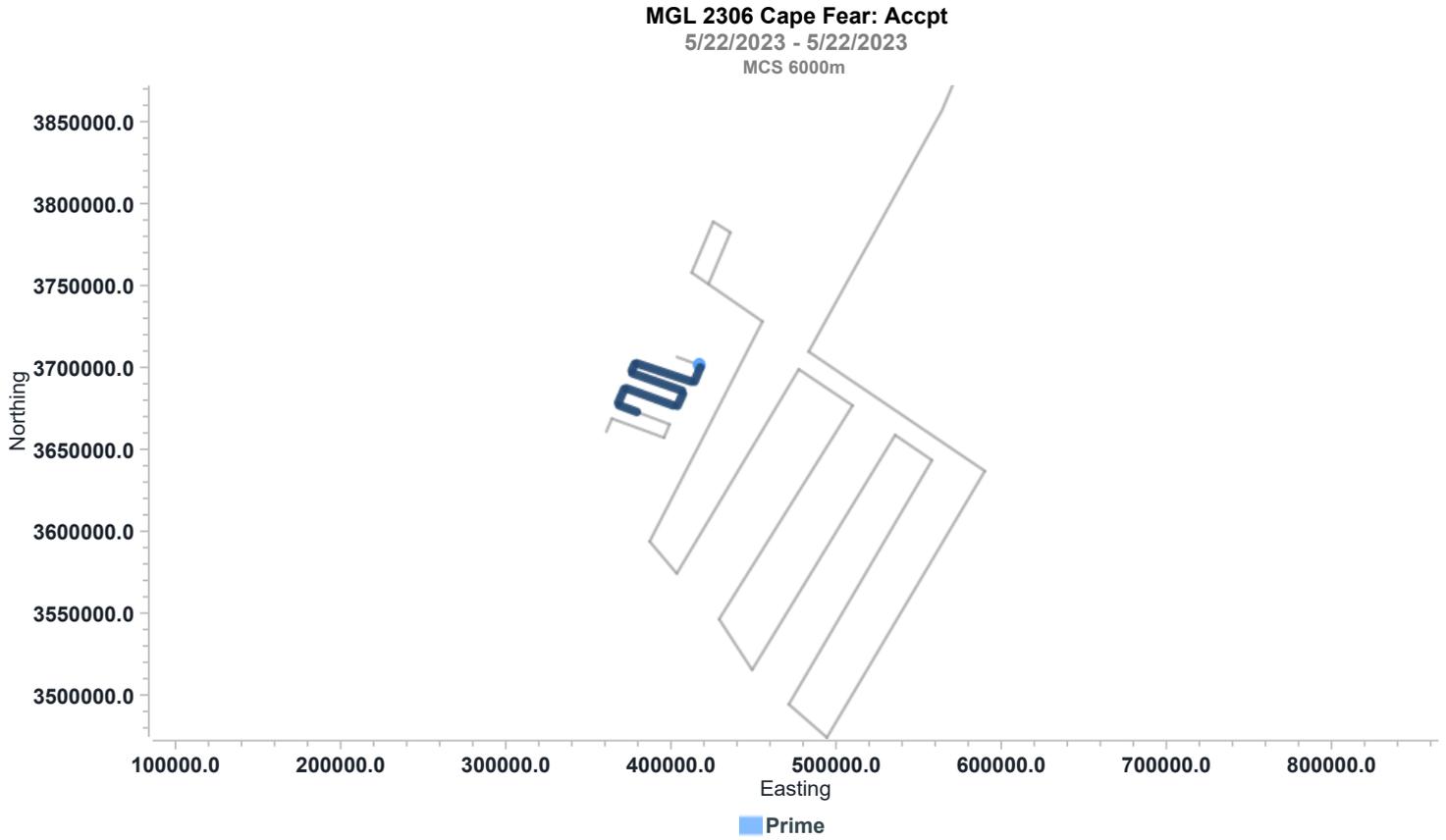
MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
23	20	110.1	1577	1577	Prime	0.03	4.467	Complete	Complete
24	21	202.3	1046	1418	Prime	9.33	2.714	Complete	Complete
25	22	288.5	1065	2466	Prime	35.05	4.024	Complete	Complete
26	23	204.0	1030	1204	Prime	4.38	1.957	Complete	Complete
27	24	109.6	1038	2312	Prime	31.88	3.850	Complete	Complete
28	25	204.4	1066	1384	Prime	7.98	2.385	Complete	Complete
29	26	290.1	1096	2299	Prime	30.10	3.733	Complete	Complete
30	27	203.3	1031	1399	Prime	9.22	3.137	Complete	Complete
31	28	110.8	1041	1500	Prime	11.50	2.398	Midnight	Part
Total						139.45			

Production Totals (Acpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	139.45	139.45	1833.02	1833.02
Combined	139.45	139.45	1833.02	1833.02



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 22 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 22 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
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- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech

5/22/2023

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Gilles Guerin L-DEO OMO Marine Science Technician - Obs
Riley Lopez L-DEO OMO Marine Science Technician - Obs
James Alan Delong - Contract Source Observer
Koray Ergun - Contract Navigator
Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

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Anne Becel - Research scientist PI
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Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
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5/23/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Tue 23 May

Good ground speed for the last 24 hours which was a huge relief to the team onboard.
 At the end of the day the vessel started the strike line running North. There are a few complicated lines and turns in the next 24 hours due to the gulf stream.
 Good progress with processing the P190s.

Daily Comment Summaries - Plan for Tomorrow

Tue 23 May

Acquire Line 37 and 19 going north. These will be very tricky with the gulf streamer.
 Several conversations were had with a few different options depending on what levels of current we see.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	01:09	Production Prime	AC_PP	1.150
Seq: 31 SOL Seq 31 Line:28 FGSP:93040 Hdg:110.8° Prime EOL Seq 31 Line:28 LGSP:94308 Complete				
01:09	01:16	Prime Line Change	AC_PLC	0.117
Seq: 31 Line: 28 Nominal Prime line change.				
01:16	02:24	Production Prime	AC_PP	1.133
Seq: 32 SOL Seq 32 Line:29 FGSP:95048 Hdg:202.8° Prime EOL Seq 32 Line:29 LGSP:95315 Complete				
02:24	02:33	Prime Line Change	AC_PLC	0.150
Seq: 32 Line: 29 Nominal Prime line change.				
02:33	07:07	Production Prime	AC_PP	4.567
Seq: 33 SOL Seq 33 Line:30 FGSP:96045 Hdg:290.3° Prime EOL Seq 33 Line:30 LGSP:97305 Complete				
07:07	07:29	Prime Line Change	AC_PLC	0.367
Seq: 33 Line: 30 Nominal Prime line change.				
07:29	08:26	Production Prime	AC_PP	0.950
Seq: 34 SOL Seq 34 Line:31 FGSP:97587 Hdg:202.9° Prime EOL Seq 34 Line:31 LGSP:97810 Complete				
08:26	08:34	Prime Line Change	AC_PLC	0.133

Start	End	Category	Code	Duration (hrs)
Seq: 34 Line: 31 Nominal Prime line change.				
08:34	12:08	Production Prime	AC_PP	3.567
Seq: 35 SOL Seq 35 Line:32 FGSP:98059 Hdg:112.8° Prime EOL Seq 35 Line:32 LGSP:99299 Complete				
12:08	12:16	Prime Line Change	AC_PLC	0.133
Seq: 35 Line: 32 Nominal Prime line change.				
12:16	13:43	Production Prime	AC_PP	1.450
Seq: 36 SOL Seq 36 Line:33 FGSP:99551 Hdg:204.5° Prime EOL Seq 36 Line:33 LGSP:99888 Complete				
13:43	13:52	Prime Line Change	AC_PLC	0.150
Seq: 36 Line: 33 Nominal Prime line change.				
13:52	17:53	Production Prime	AC_PP	4.017
Seq: 37 SOL Seq 37 Line:34 FGSP:100060 Hdg:294.9° Prime EOL Seq 37 Line:34 LGSP:101296 Complete				
17:53	18:00	Prime Line Change	AC_PLC	0.117
Seq: 37 Line: 34 Nominal Prime line change.				
18:00	19:31	Production Prime	AC_PP	1.517
Seq: 38 SOL Seq 38 Line:35 FGSP:102018 Hdg:237° Prime EOL Seq 38 Line:35 LGSP:102278 Complete				
19:31	19:40	Prime Line Change	AC_PLC	0.150
Seq: 38 Line: 35 Nominal Prime line change.				
19:40	20:57	Production Prime	AC_PP	1.283
Seq: 39 SOL Seq 39 Line:36 FGSP:103095 Hdg:120.6° Prime EOL Seq 39 Line:36 LGSP:103512 Complete				
20:57	21:04	Prime Line Change	AC_PLC	0.117
Seq: 39 Line: 36 Nominal Prime line change.				
21:04	24:00	Production Prime	AC_PP	2.933
Seq: 40 SOL Seq 40 Line:37 FGSP:104066 FCSP:N/A Hdg:23.2° Prime MSP Seq 40 Line:37 LGSP:105206 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

23-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	1.433	5.972
Production Prime	22.567	94.028
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	4.917	1.205
Currents and Tides	4.917	1.205
Mobilisation	105.983	25.976
Deployment	23.883	5.854
Mob Ashore	65.000	15.931
Transit to Prospect	17.100	4.191
Acquisition	276.733	67.827
Infill Line Change	0.250	0.061
Prime Line Change	7.633	1.871
Production Prime	268.850	65.895
DownTime	20.367	4.992
Nav Systems In-Sea	17.033	4.175
Towing Source	3.333	0.817
Total	408.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
31	28	110.8	1501	2309	Prime	20.23	4.585	Complete	Complete
32	29	202.8	1048	1315	Prime	6.70	3.180	Complete	Complete
33	30	290.3	1046	2306	Prime	31.53	3.725	Complete	Complete

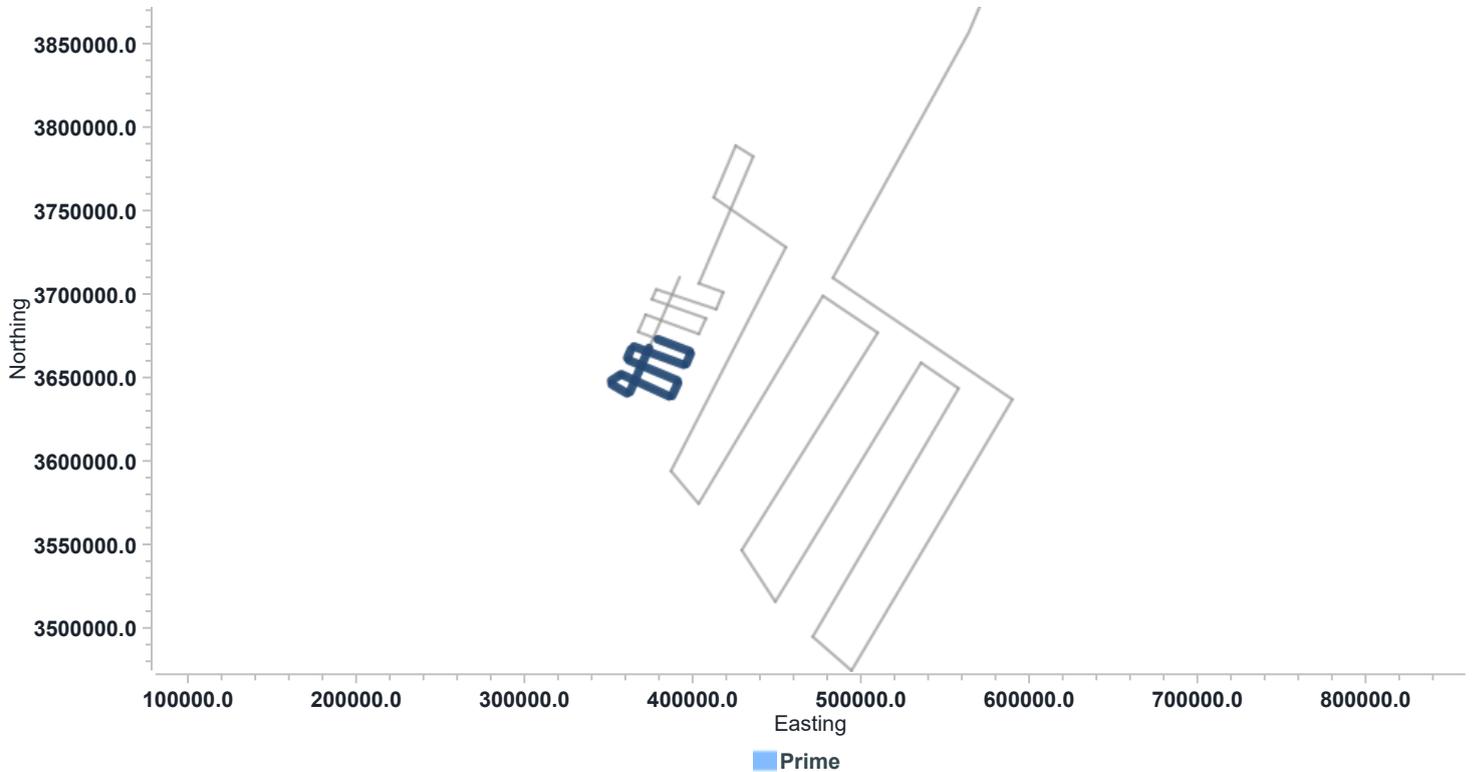
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
34	31	202.9	1088	1311	Prime	5.60	3.169	Complete	Complete
35	32	112.8	1060	2300	Prime	31.03	4.693	Complete	Complete
36	33	204.5	1052	1389	Prime	8.45	3.137	Complete	Complete
37	34	294.9	1061	2297	Prime	30.93	4.154	Complete	Complete
38	35	237.0	1019	1279	Prime	6.53	2.314	Complete	Complete
39	36	120.6	1096	1513	Prime	10.45	4.386	Complete	Complete
40	37	23.2	1067	2207	Prime	28.53	5.246	Midnight	Part
Total						179.95			

Production Totals (Accept km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	179.95	319.40	2012.98	2012.98
Combined	179.95	319.40	2012.98	2012.98

MGL 2306 Cape Fear: Accpt
5/23/2023 - 5/23/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 23 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
No Major Issues to Report

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

5/23/2023

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General Purpose Science:

No Major issues to Report.

Daily Comment Summaries - Personnel Onboard

Tue 23 May

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 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
15:55	16:55	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/24/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Wed 24 May

There was initial concern with the line directions, turning and the gulf stream for lines. However, the vessel had good luck as the currents that were observed were much less than several days ago. The vessel was able to acquire line 19, which was aborted previously and we were able to turn on and off of line with minimal current affect.

Daily Comment Summaries - Plan for Tomorrow

Wed 24 May

Continue MCS acquisition.
 The weather will start to come up.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	06:00	■ Production Prime	AC_PP	6.000
Seq: 40 SOL Seq 40 Line:37 FGSP:105207 Hdg:23.2° Prime EOL Seq 40 Line:37 LGSP:107485 Complete				
06:00	06:09	■ Prime Line Change	AC_PLC	0.150
Seq: 40 Line: 37 Nominal Prime line change.				
06:09	07:19	■ Production Prime	AC_PP	1.167
Seq: 41 SOL Seq 41 Line:20a FGSP:108012 Hdg:289.3° Prime EOL Seq 41 Line:20a LGSP:108163 Complete				
07:19	07:34	■ Prime Line Change	AC_PLC	0.250
Seq: 41 Line: 20a Nominal Prime line change.				
07:34	10:12	■ Production Prime	AC_PP	2.633
Seq: 42 SOL Seq 42 Line:19 FGSP: 109484 Hdg:23.4° Prime EOL Seq 42 Line:19 LGSP: 110092 Complete				
10:12	10:23	■ Prime Line Change	AC_PLC	0.183
Seq: 42 Line: 19 Nominal Prime line change.				
10:23	11:45	■ Production Prime	AC_PP	1.367
Seq: 43 SOL Seq 43 Line:14b FGSP:110505 Hdg:179.8° Prime EOL Seq 43 Line:14b LGSP:110692 Complete				

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Start	End	Category	Code	Duration (hrs)
11:45	11:55	Prime Line Change	AC_PLC	0.167
Seq: 43 Line: 14b Nominal Prime line change.				
11:55	20:10	Production Prime	AC_PP	8.250
Seq: 44 SOL Seq 44 Line:37a FGSP:111042 Hdg:203° Prime EOL Seq 44 Line:37a LGSP:113037 Complete				
20:10	20:18	Prime Line Change	AC_PLC	0.133
Seq: 44 Line: 37a Nominal Prime line change.				
20:18	22:35	Production Prime	AC_PP	2.283
Seq: 45 SOL Seq 45 Line:20b FGSP:114068 Hdg:109.2° Prime EOL Seq 45 Line:20b LGSP:114921 Complete				
22:35	23:37	Prime Line Change	AC_PLC	1.033
Seq: 45 Line: 20b Nominal Prime line change.				
23:37	24:00	Production Prime	AC_PP	0.383
Seq: 46 SOL Seq 46 Line:18 FGSP:116001 FCSP:N/A Hdg:291.4° Prime MSP Seq 46 Line:18 LGSP:116126 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

24-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	1.917	7.986
Production Prime	22.083	92.014
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	4.917	1.138
Currents and Tides	4.917	1.138
Mobilisation	105.983	24.533
Deployment	23.883	5.529
Mob Ashore	65.000	15.046
Transit to Prospect	17.100	3.958
Acquisition	300.733	69.614
Infill Line Change	0.250	0.058
Prime Line Change	9.550	2.211
Production Prime	290.933	67.346
DownTime	20.367	4.715
Nav Systems In-Sea	17.033	3.943
Towing Source	3.333	0.772
Total	432.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept km by Shotpoint) - Full Fold

MCS 6000m

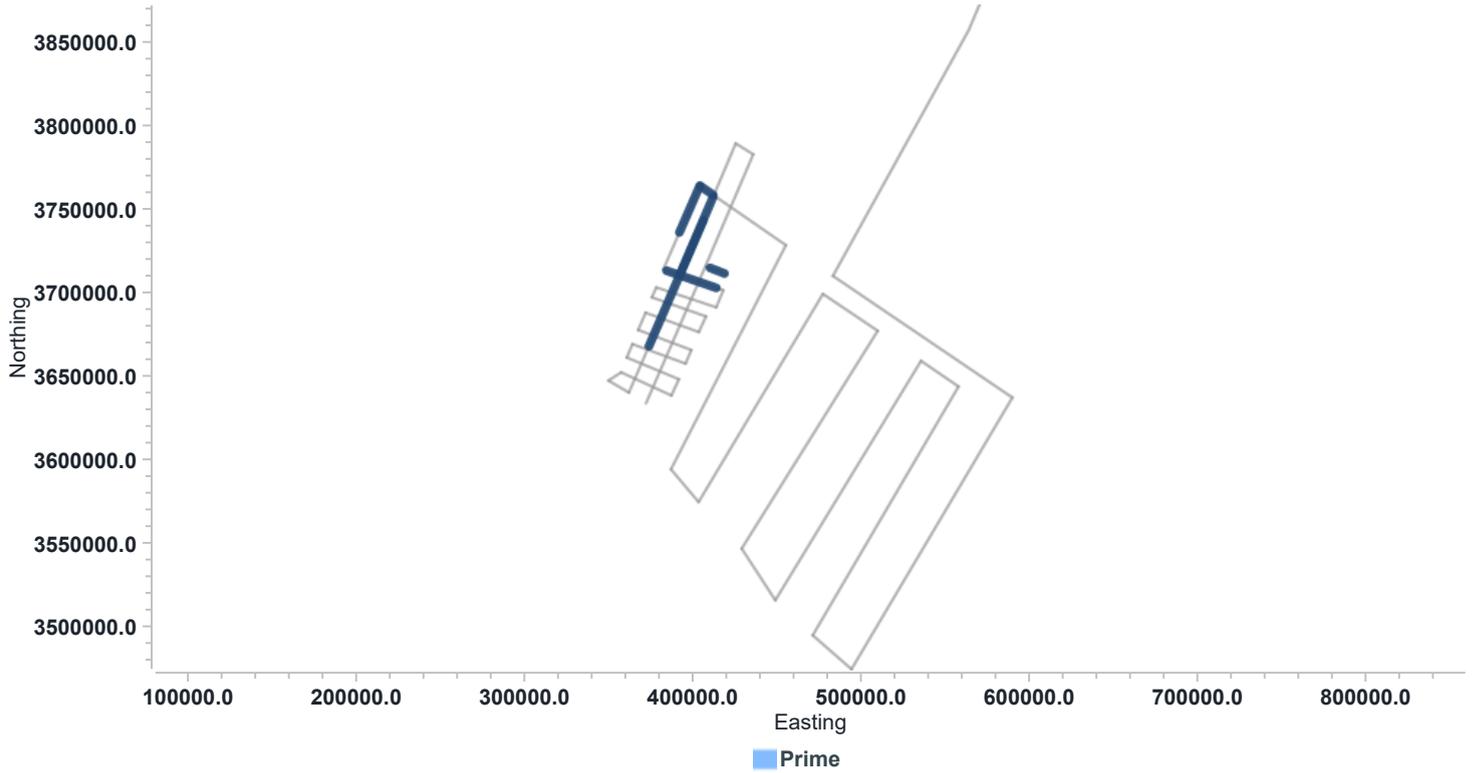
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
40	37	23.2	2208	5486	Prime	81.98	6.677	Complete	Complete
41	20a	289.3	1013	1164	Prime	3.80	1.747	Complete	Complete
42	19	23.4	1485	2093	Prime	15.23	3.117	Complete	Complete
43	14b	125.0	1006	1193	Prime	4.70	1.847	Complete	Complete
44	37a	203.0	1043	3038	Prime	49.90	3.264	Complete	Complete
45	20b	109.2	1069	1922	Prime	21.35	5.043	Complete	Complete
46	18	291.4	1002	1367	Prime	9.15	12.853	Midnight	Part
Total						186.10			

Production Totals (Accept km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	186.10	505.50	2199.08	2199.08
Combined	186.10	505.50	2199.08	2199.08

MGL 2306 Cape Fear: Acpt
5/24/2023 - 5/24/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 24 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

Digi birds 8 and 9 appear to be affected by fishing gear or they are off the collars.

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major issues to Report.

Daily Comment Summaries - Personnel Onboard

Wed 24 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

5/24/2023

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:15	17:15	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/25/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Thu 25 May

With the completion of line 39 the western lines are now done.
 The vessel should now be operating outside of the strongest portions of the gulf stream.

There is marginal weather approaching from the North West. Currently the vessel is headed South East away from it.

Array 2 was recovered today for a bad gun.

Daily Comment Summaries - Plan for Tomorrow

Thu 25 May

Complete Line 40 and recover the streamer for inspection and maintenance of digibirds 8 and 9.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	00:59	Production Prime	AC_PP	0.983
Seq: 46 SOL Seq 46 Line:18 FGSP:116001 Hdg:291.4° Prime EOL Seq 46 Line:18 LGSP:116431 Complete				
00:59	01:15	Prime Line Change	AC_PLC	0.267
Seq: 46 Line: 18 Nominal Prime line change.				
01:15	14:31	Production Prime	AC_PP	13.267
Seq: 47 SOL Seq 47 Line:39 FGSP:118599 Hdg:203.3° Prime EOL Seq 47 Line:39 LGSP:122150 Complete				
14:31	14:45	Prime Line Change	AC_PLC	0.233
Seq: 47 Line: 39 Nominal Prime line change.				
14:45	24:00	Production Prime	AC_PP	9.250
Seq: 48 SOL Seq 48 Line:40 FGSP:123079 FCSP:N/A Hdg:126.6° Prime MSP Seq 48 Line:40 LGSP:126455 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

25-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.500	2.083
Production Prime	23.500	97.917
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	4.917	1.078
Currents and Tides	4.917	1.078
Mobilisation	105.983	23.242
Deployment	23.883	5.238
Mob Ashore	65.000	14.254
Transit to Prospect	17.100	3.750
Acquisition	324.733	71.213
Infill Line Change	0.250	0.055
Prime Line Change	10.050	2.204
Production Prime	314.433	68.955
DownTime	20.367	4.466
Nav Systems In-Sea	17.033	3.735
Towing Source	3.333	0.731
Total	456.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
46	18	291.4	1368	1432	Prime	1.63	4.247	Complete	Complete
47	39	203.3	600	4151	Prime	88.80	3.613	Complete	Complete
48	40	126.6	1080	4456	Prime	84.43	4.927	Midnight	Part
Total						174.85			

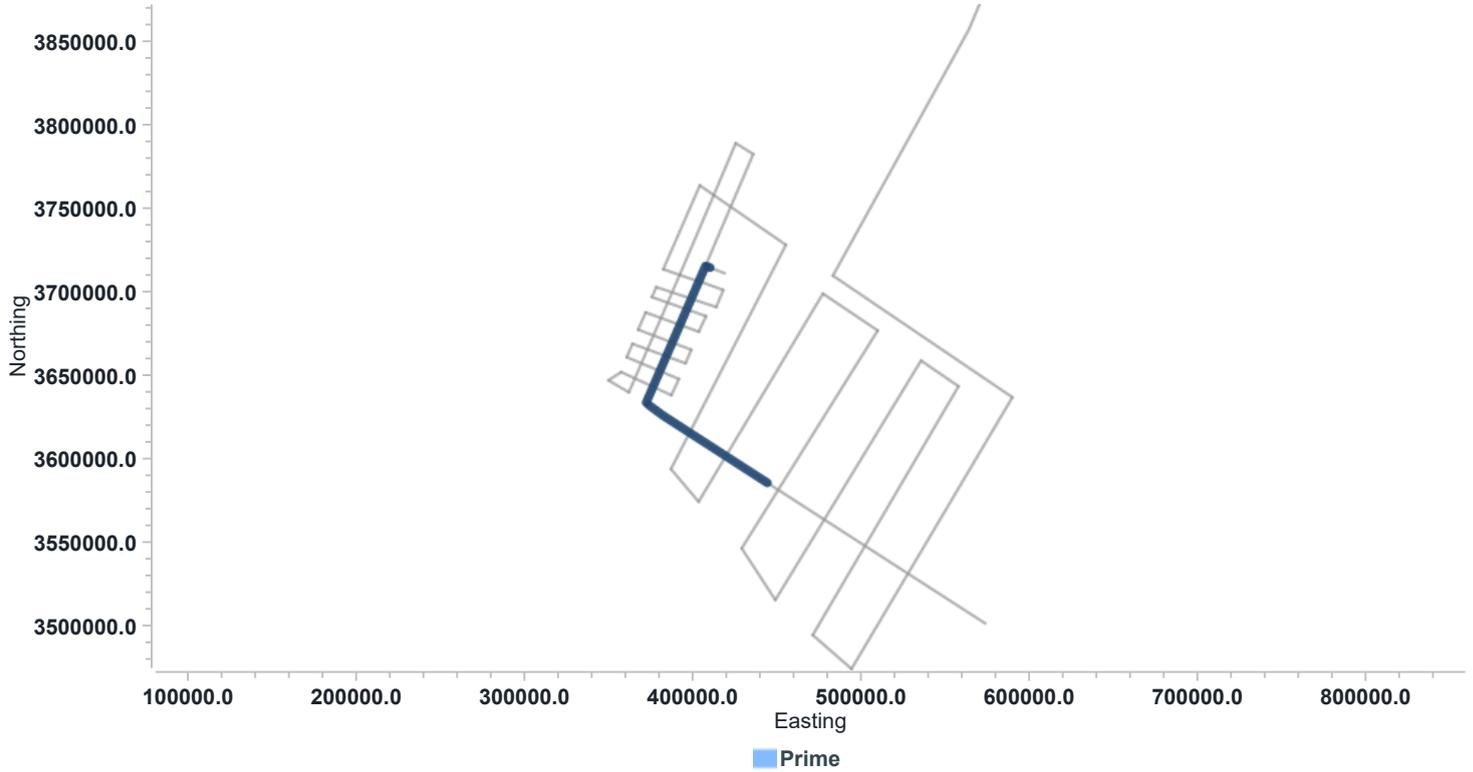
Production Totals (Accpt km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	174.85	680.35	2373.93	2373.93

Accepted km	Day	Week	Month	Project
Combined	174.85	680.35	2373.93	2373.93

MGL 2306 Cape Fear: Accpt
5/25/2023 - 5/25/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 25 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

Digi birds 8 and 9 appear to be affected by fishing gear or they are off the collars.

Towing and Handling (Source):

No Major Issues to Report

General Purpose Science:

No Major issues to Report.

Daily Comment Summaries - Personnel Onboard

Thu 25 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator

5/25/2023

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Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO

Ana Durazo - RPS PSO

Kristal Mohammed - RPS PSO

Jo-Ann Sooker - RPS PSO

Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI

Hugh Daigle - Research scientist Co-PI

Nathan Miller - Research scientist Co-PI

C Jo Grall - Research scientist

Bill Danforth - Research scientist

Dave Foster - Research scientist

Wayne Baldwin - Research scientist

James Gibson - Postdoc

Ali Mohammed - GRA Student

Mason Farnsworth - GRA Student

Tanner Acquisto - GRA Student

Emma Le Gall - Ms Student

Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth,)

Start	End	Category	Code
16:10	17:10	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/26/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Fri 26 May

Line 40 was completed by ~1600.
 Full gear recovery was started after line 40 to investigate the problem on bird 8 and 9.
 On recovery 9 birds were found to be off the collars. It appears the streamer hit some fishing gear and ripped the digis out of the collars.

Daily Comment Summaries - Plan for Tomorrow

Fri 26 May

Continue acquisition on line 41.
 Before the start of line 42 the weather will need to be assessed to ascertain whether the line should be started or delayed.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	16:10	Production Prime	AC_PP	16.167
Seq: 48 SOL Seq 48 Line:40 FGSP:126456 Hdg:126.6° Prime EOL Seq 48 Line:40 LGSP:132628 Complete				
16:10	24:00	Fishing	NC_FS	7.833
Non-chargeable standby due to fishing gear damage Full recovery of guns and streamer to replace digibirds that were knocked off the collars due to fishing gear. On recovery 9 digibirds were off their collars.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

26-May	Hours	% Percent
Acquisition	16.167	67.361
Production Prime	16.167	67.361
Non-Chargeable StandBy	7.833	32.639
Fishing	7.833	32.639
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	12.750	2.656
Currents and Tides	4.917	1.024
Fishing	7.833	1.632
Mobilisation	105.983	22.080
Deployment	23.883	4.976
Mob Ashore	65.000	13.542
Transit to Prospect	17.100	3.563
Acquisition	340.900	71.021
Infill Line Change	0.250	0.052

Category	Hours	% Percent
Prime Line Change	10.050	2.094
Production Prime	330.600	68.875
DownTime	20.367	4.243
Nav Systems In-Sea	17.033	3.549
Towing Source	3.333	0.694
Total	480.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt Main km by Shotpoint) - Full Fold

MCS 6000m

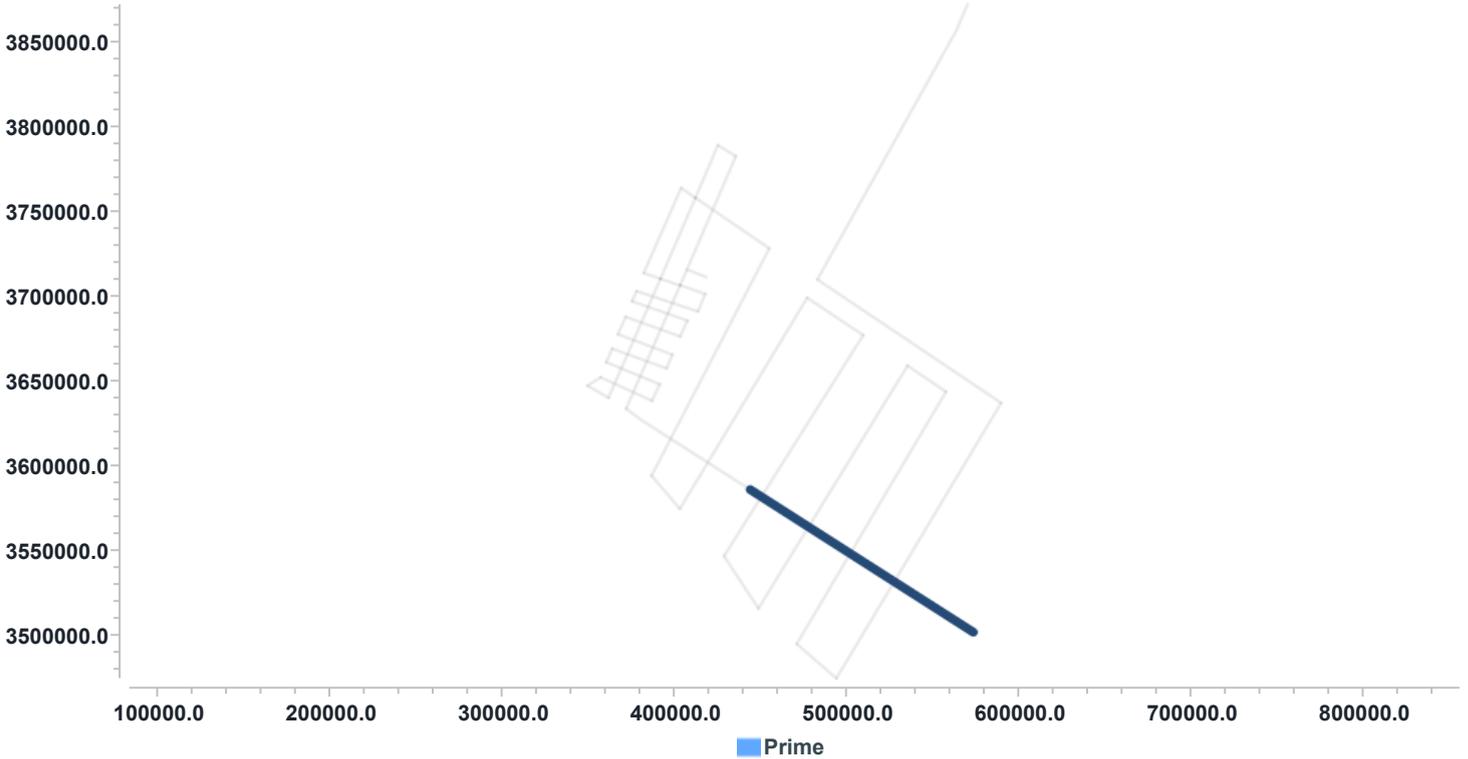
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
48	40	126.6	4457	10629	Prime	154.33	5.072	Complete	Complete
Total						154.33			

Production Totals (Accpt Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	154.33	834.67	2528.25	2528.25
Combined	154.33	834.67	2528.25	2528.25

MGL 2306 Cape Fear: Accpt
5/26/2023 - 5/26/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 26 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

5/26/2023

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:10	17:10	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

Daily Total Category	Code	Count
 Task, Hazard, Control	Re_Con_THC	1
Galley times do not match the posted signs		

5/27/2023

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Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sat 27 May

Streamer maintenance operations were completed successfully.
 Line 41 was started and finished.
 A 6 km run out and 6km runin were added to lines 41 and 42.
 The weather on the Western end of the work area was assessed and it was agreed to start line 42 headed west.

Daily Comment Summaries - Plan for Tomorrow

Sat 27 May

Continue shooting line 42.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	02:43	Fishing	NC_FS	2.717
Non-chargeable standby due to fishing gear damage Full recovery of guns and streamer to replace digibirds that were knocked off the collars due to fishing gear. On recovery 9 digibirds were off their collars.				
02:43	13:53	Production Prime	AC_PP	11.167
Seq: 49 SOL Seq 49 Line:41 FGSP:-133613 Hdg:86.9° Prime EOL Seq 49 Line:41 LGSP: 137510 Complete				
13:53	16:14	Prime Line Change	AC_PLC	2.350
Seq: 49 Line: 41 Nominal Prime line change.				
16:14	24:00	Production Prime	AC_PP	7.767
Seq: 50 SOL Seq 50 Line:42 FGSP:138761 Hdg:303° Prime MSP Seq 50 Line:42 LGSP:141210 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

27-May	Hours	% Percent
Acquisition	21.283	88.681
Prime Line Change	2.350	9.792
Production Prime	18.933	78.889
Non-Chargeable StandBy	2.717	11.319
Fishing	2.717	11.319
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	3.069
Currents and Tides	4.917	0.976
Fishing	10.550	2.093
Mobilisation	105.983	21.028
Deployment	23.883	4.739
Mob Ashore	65.000	12.897
Transit to Prospect	17.100	3.393
Acquisition	362.183	71.862
Infill Line Change	0.250	0.050
Prime Line Change	12.400	2.460
Production Prime	349.533	69.352
DownTime	20.367	4.041
Nav Systems In-Sea	17.033	3.380
Towing Source	3.333	0.661
Total	504.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept Main km by Shotpoint) - Full Fold

MCS 6000m

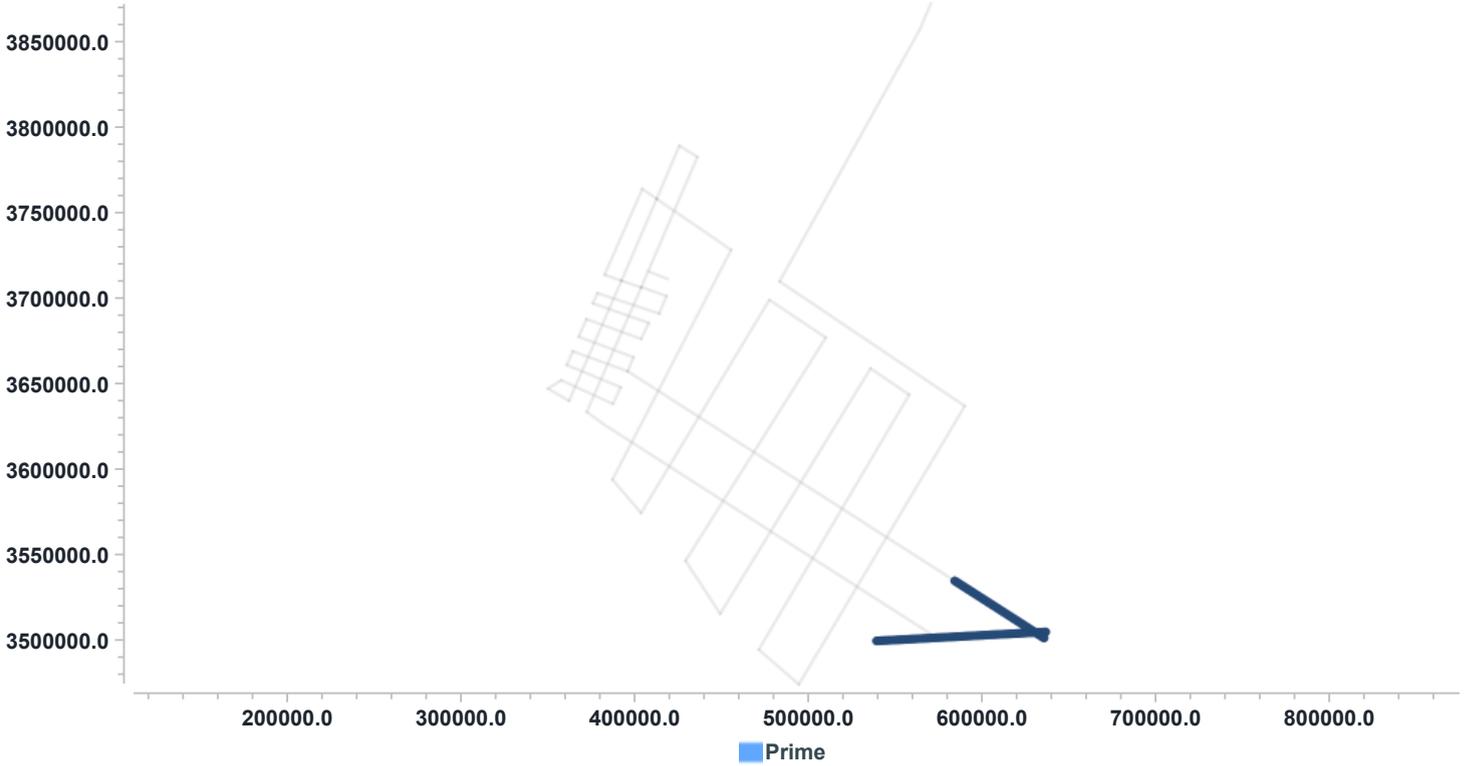
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
49	41	86.9	-386	3511	Prime	97.45	4.711	Complete	Complete
50	42	303.0	762	3211	Prime	61.25	4.257	Midnight	Part
Total						158.70			

Production Totals (Accept Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	158.70	993.38	2686.95	2686.95
Combined	158.70	993.38	2686.95	2686.95

MGL 2306 Cape Fear: Accpt
5/27/2023 - 5/27/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 27 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

5/27/2023

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:15	17:15	Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/28/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sun 28 May

Production on Line 42 all day.
 Source separations are close. At end of line there will be some small adjustments.
 It appears we timed the weather perfectly, we have been following a constant 2 meter swell all the way west.

Daily Comment Summaries - Plan for Tomorrow

Sun 28 May

Finish line 42.
 Gun work.
 Start line 43

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	24:00	Production Prime	AC_PP	24.000
Seq: 50 SOL Seq 50 Line:42 FGSP:141211 Hdg:303° Prime MSP Seq 50 Line:42 LGSP:148340 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

28-May	Hours	% Percent
Acquisition	24.000	100.000
Production Prime	24.000	100.000
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.929
Currents and Tides	4.917	0.931
Fishing	10.550	1.998
Mobilisation	105.983	20.073
Deployment	23.883	4.523
Mob Ashore	65.000	12.311
Transit to Prospect	17.100	3.239
Acquisition	386.183	73.141
Infill Line Change	0.250	0.047
Prime Line Change	12.400	2.348
Production Prime	373.533	70.745
DownTime	20.367	3.857
Nav Systems In-Sea	17.033	3.226
Towing Source	3.333	0.631

5/28/2023

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Category	Hours	% Percent
Total	528.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Acct Main km by Shotpoint) - Full Fold

MCS 6000m

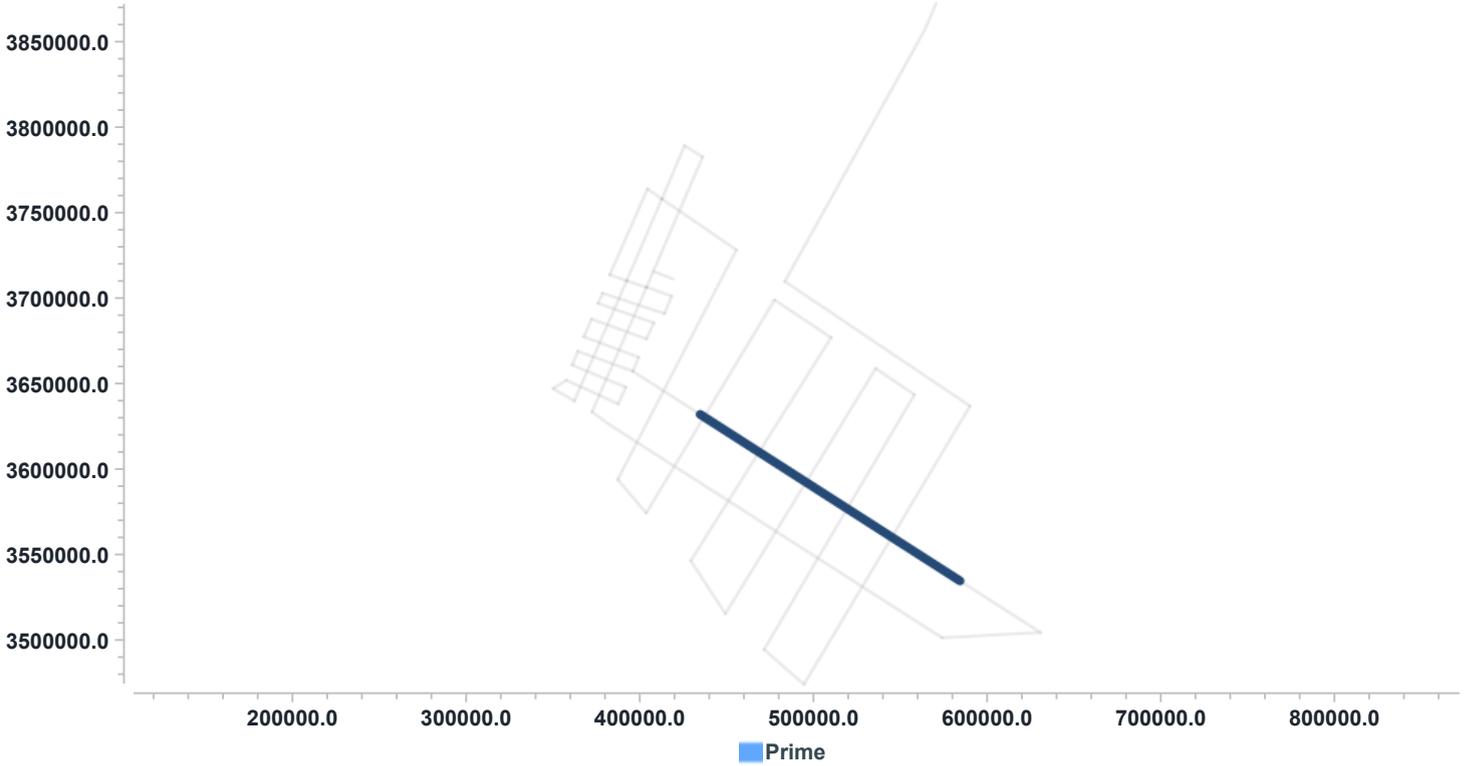
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
50	42	303.0	3212	10341	Prime	178.25	4.070	Midnight	Part
Total						178.25			

Production Totals (Acct Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	178.25	1171.63	2865.20	2865.20
Combined	178.25	1171.63	2865.20	2865.20

MGL 2306 Cape Fear: Accpt
5/28/2023 - 5/28/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sun 28 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

5/28/2023

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:15	17:15	Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/29/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Mon 29 May

Completed lines 42 and 43, started line 44.
 At the end of line 42 there was some minor gun work, adjusting tow ropes.
 There were some artefacts in the Knudsen data, it appeared to be on full gain. The Chirp unit was power cycled twice and that seems to have solved the issue.
 The crew had a BBQ today, many thanks go out to the galley team.
 After this last storm has pasted the weather has been great and our ground speed has been up.
 The team are currently looking in to the contingency time and what lines can be acquired.

Daily Comment Summaries - Plan for Tomorrow

Mon 29 May

Complete line 44 and start line 45.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	06:44	Production Prime	AC_PP	6.733
Seq: 50 SOL Seq 50 Line:42 FGSP: 138761 Hdg:303° Prime EOL Seq 50 Line:42 LGSP: 150175 Complete				
06:44	06:53	Prime Line Change	AC_PLC	0.150
Seq: 50 Line: 42 Nominal Prime line change.				
06:53	13:39	Production Prime	AC_PP	6.767
Seq: 51 SOL Seq 51 Line:43 FGSP:151077 Hdg:23.2° Prime EOL Seq 51 Line:43 LGSP:153540 Complete				
13:39	14:05	Prime Line Change	AC_PLC	0.433
Seq: 51 Line: 43 Nominal Prime line change.				
14:05	24:00	Production Prime	AC_PP	9.917
Seq: 52 SOL Seq 52 Line:44 FGSP:154093 Hdg:124.1° Prime MSP Seq 52 Line:44 LGSP:157543 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

29-May	Hours	% Percent
Acquisition	24.000	100.000

5/29/2023

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29-May	Hours	% Percent
Prime Line Change	0.583	2.431
Production Prime	23.417	97.569
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.802
Currents and Tides	4.917	0.891
Fishing	10.550	1.911
Mobilisation	105.983	19.200
Deployment	23.883	4.327
Mob Ashore	65.000	11.775
Transit to Prospect	17.100	3.098
Acquisition	410.183	74.309
Infill Line Change	0.250	0.045
Prime Line Change	12.983	2.352
Production Prime	396.950	71.911
DownTime	20.367	3.690
Nav Systems In-Sea	17.033	3.086
Towing Source	3.333	0.604
Total	552.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept Main km by Shotpoint) - Full Fold

MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
50	42	303.0	10342	12176	Prime	45.88	4.002	Complete	Complete
51	43	23.2	1001	3541	Prime	63.53	5.067	Complete	Complete
52	44	124.1	1094	4544	Prime	86.28	4.696	Midnight	Part

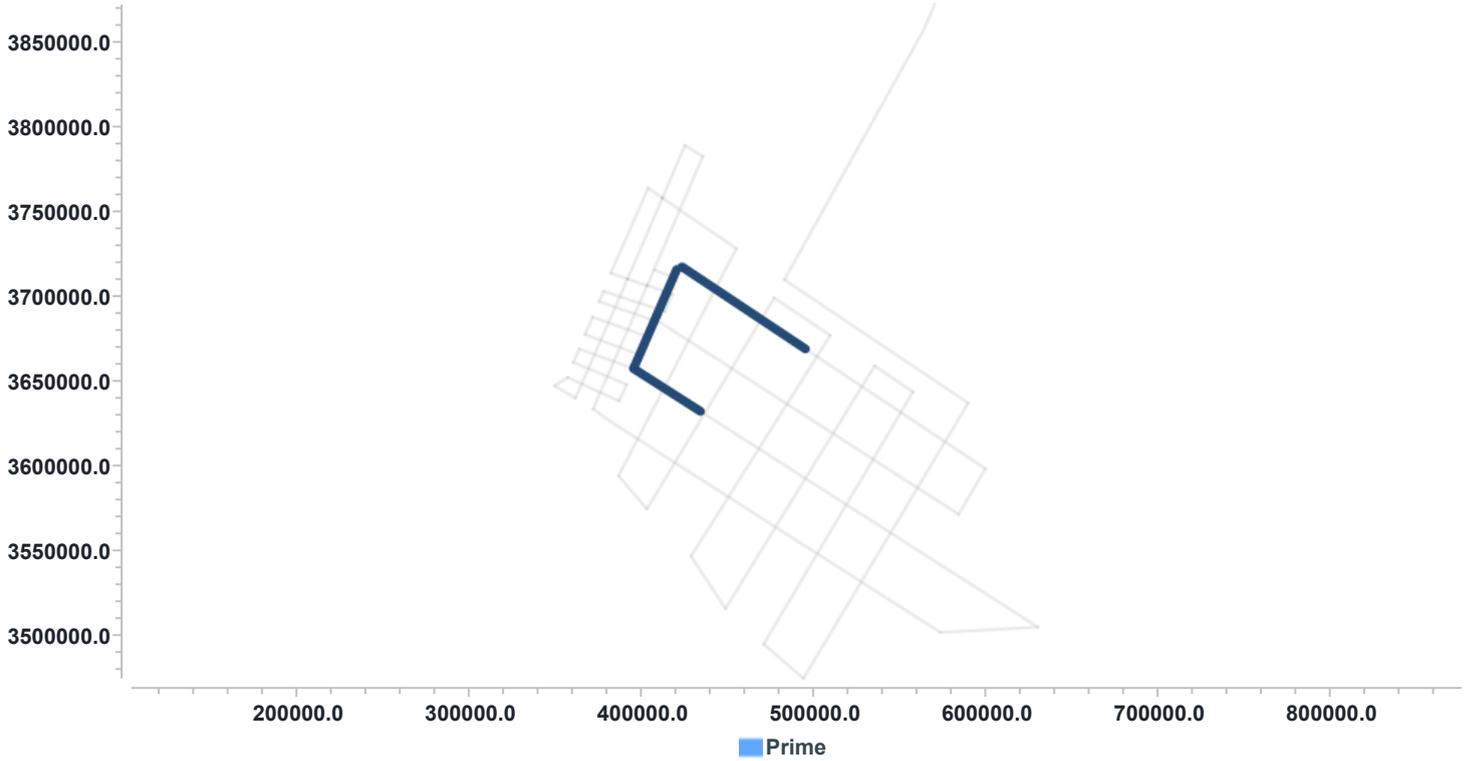
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total						195.68			

Production Totals (Acpt Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	195.68	195.68	3060.88	3060.88
Combined	195.68	195.68	3060.88	3060.88

MGL 2306 Cape Fear: Acpt
5/29/2023 - 5/29/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Mon 29 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 29 May

Technical Staff On-board the Langseth
Cody Bahlau L-DEO OMO Chief Science Officer
Josh Kasinger L-DEO OMO Chief Source Mechanic

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Brian Agee L-DEO OMO Senior Source Mechanic
 Ray Hatton - Contract Source Mech
 Malcolm Moody - Contract Source Mech
 Gilles Guerin L-DEO OMO Marine Science Technician - Obs
 Riley Lopez L-DEO OMO Marine Science Technician - Obs
 James Alan Delong - Contract Source Observer
 Koray Ergun - Contract Navigator
 Jared Gurslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
 Ana Durazo - RPS PSO
 Kristal Mohammed - RPS PSO
 Jo-Ann Sooker - RPS PSO
 Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
 Hugh Daigle -Research scientist Co-PI
 Nathan Miller - Research scientist Co-PI
 C Jo Grall - Research scientist
 Bill Danforth - Research scientist
 Dave Foster -Research scientist
 Wayne Baldwin - Research scientist
 James Gibson - Postdoc
 Ali Mohammed - GRA Student
 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:20	17:20	Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/30/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Tue 30 May

Completed lines 44, 45 and started line 46.
 Array 1 was brought on board for an air leak and broken depth rope.
 Continue to trouble shoot Knudsen. Called Technical support and worked through a few settings and parameters, the Knudsen appears to be working correctly now.
 Added lines 48 to 52 to the shooting plan. This will enable the vessel to acquire data until the morning of June 2nd, from there the vessel will start streamer recovery.

Daily Comment Summaries - Plan for Tomorrow

Tue 30 May

Finish line 46.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	14:52	Production Prime	AC_PP	14.867
Seq: 52 SOL Seq 52 Line:44 FGSP:157544 Hdg:124.1° Prime EOL Seq 52 Line:44 LGSP:162560 Complete				
14:52	15:01	Prime Line Change	AC_PLC	0.150
Seq: 52 Line: 44 Nominal Prime line change.				
15:01	18:58	Production Prime	AC_PP	3.950
Seq: 53 SOL Seq 53 Line:45 FGSP:163060 Hdg:210.2° Prime EOL Seq 53 Line:45 LGSP:164200 Complete				
18:58	19:22	Prime Line Change	AC_PLC	0.400
Seq: 53 Line: 45 Nominal Prime line change.				
19:22	24:00	Production Prime	AC_PP	4.633
Seq: 54 SOL Seq 54 Line:46: FGSP 165042 Hdg:303.2° Prime MSP Seq 54 Line:46: LGSP:166027 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

30-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.550	2.292
Production Prime	23.450	97.708

5/30/2023

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30-May	Hours	% Percent
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.685
Currents and Tides	4.917	0.854
Fishing	10.550	1.832
Mobilisation	105.983	18.400
Deployment	23.883	4.146
Mob Ashore	65.000	11.285
Transit to Prospect	17.100	2.969
Acquisition	434.183	75.379
Infill Line Change	0.250	0.043
Prime Line Change	13.533	2.350
Production Prime	420.400	72.986
DownTime	20.367	3.536
Nav Systems In-Sea	17.033	2.957
Towing Source	3.333	0.579
Total	576.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt Main km by Shotpoint) - Full Fold

MCS 6000m

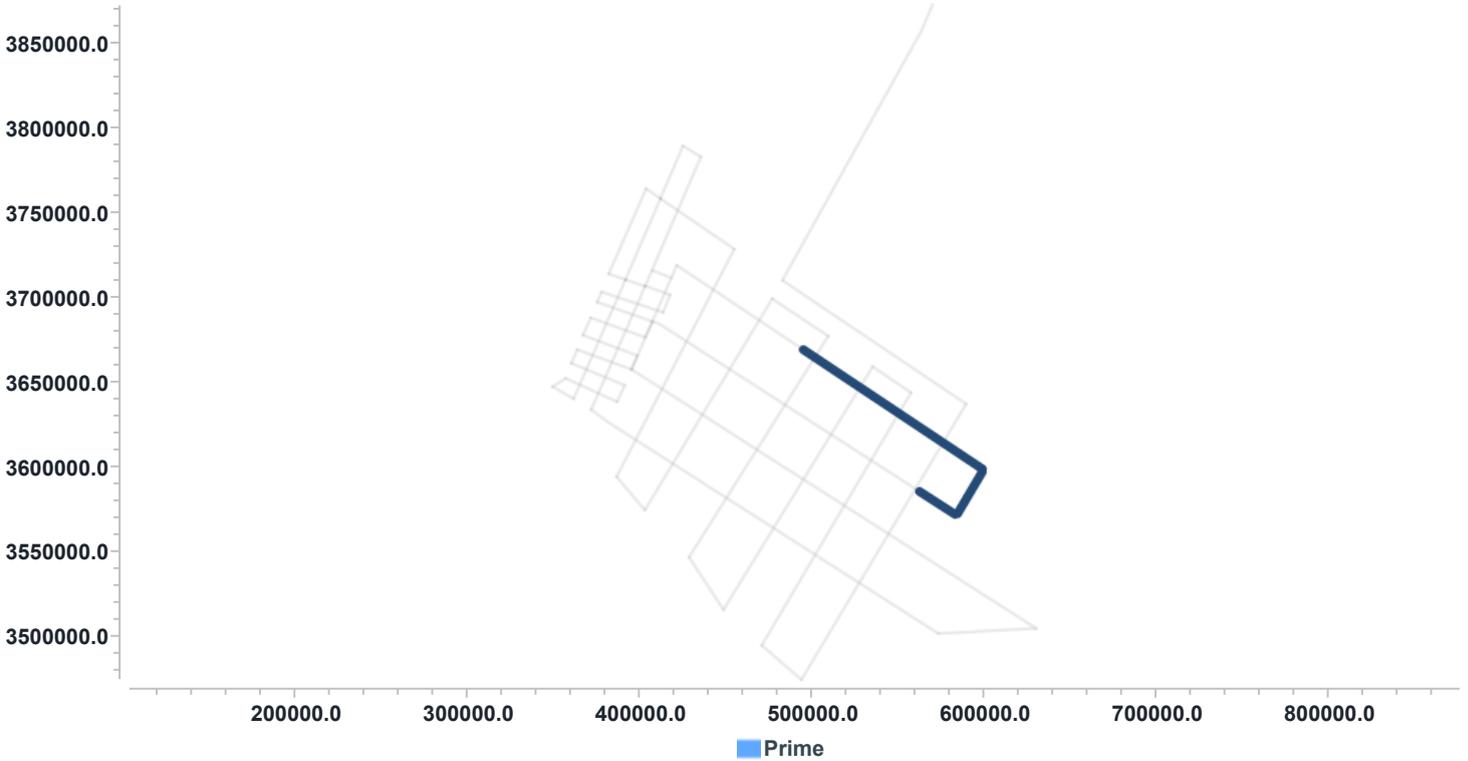
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
52	44	124.1	4545	9561	Prime	125.43	4.612	Complete	Complete
53	45	210.2	1061	2201	Prime	28.53	3.896	Complete	Complete
54	46	303.2	1043	2027	Prime	24.63	2.867	Midnight	Part
Total						178.58			

Production Totals (Acpt Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	178.58	374.25	3239.45	3239.45
Combined	178.58	374.25	3239.45	3239.45

MGL 2306 Cape Fear: Acpt
5/30/2023 - 5/30/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Tue 30 May

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech

5/30/2023

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Gilles Guerin L-DEO OMO Marine Science Technician - Obs
 Riley Lopez L-DEO OMO Marine Science Technician - Obs
 James Alan Delong - Contract Source Observer
 Koray Ergun - Contract Navigator
 Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
 Ana Durazo - RPS PSO
 Kristal Mohammed - RPS PSO
 Jo-Ann Sooker - RPS PSO
 Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
 Hugh Daigle -Research scientist Co-PI
 Nathan Miller - Research scientist Co-PI
 C Jo Grall - Research scientist
 Bill Danforth - Research scientist
 Dave Foster -Research scientist
 Wayne Baldwin - Research scientist
 James Gibson - Postdoc
 Ali Mohammed - GRA Student
 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:05	17:05	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

5/31/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Wed 31 May

Completed line 46 and started line 47.
 Towards the end of line 46 the currents were quite high, speed over the ground was ~3.5.
 Knudsen continues to have noise problems, gathered information and data examples and sent to Knudsen technical support.

Daily Comment Summaries - Plan for Tomorrow

Wed 31 May

Complete line 47, 48 and start line 49.
 Plan for gear recovery.

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	23:21	Production Prime	AC_PP	23.350
Seq: 54 SOL Seq 54 Line:46 FGSP: 165042 Hdg:303.2° Prime EOL Seq 54 Line:46 LGSP: 173370 Complete				
23:21	23:30	Prime Line Change	AC_PLC	0.150
Seq: 54 Line: 46 Nominal Prime line change.				
23:30	24:00	Production Prime	AC_PP	0.500
Seq: 55 SOL Seq 55 Line:47 FGSP: 175061 Hdg:23° Prime MSP Seq 55 Line:47 LGSP: 175220 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

31-May	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.150	0.625
Production Prime	23.850	99.375
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.578
Currents and Tides	4.917	0.819
Fishing	10.550	1.758
Mobilisation	105.983	17.664
Deployment	23.883	3.981

Category	Hours	% Percent
Mob Ashore	65.000	10.833
Transit to Prospect	17.100	2.850
Acquisition	458.183	76.364
Infill Line Change	0.250	0.042
Prime Line Change	13.683	2.281
Production Prime	444.250	74.042
DownTime	20.367	3.394
Nav Systems In-Sea	17.033	2.839
Towing Source	3.333	0.556
Total	600.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accpt Main km by Shotpoint) - Full Fold

MCS 6000m

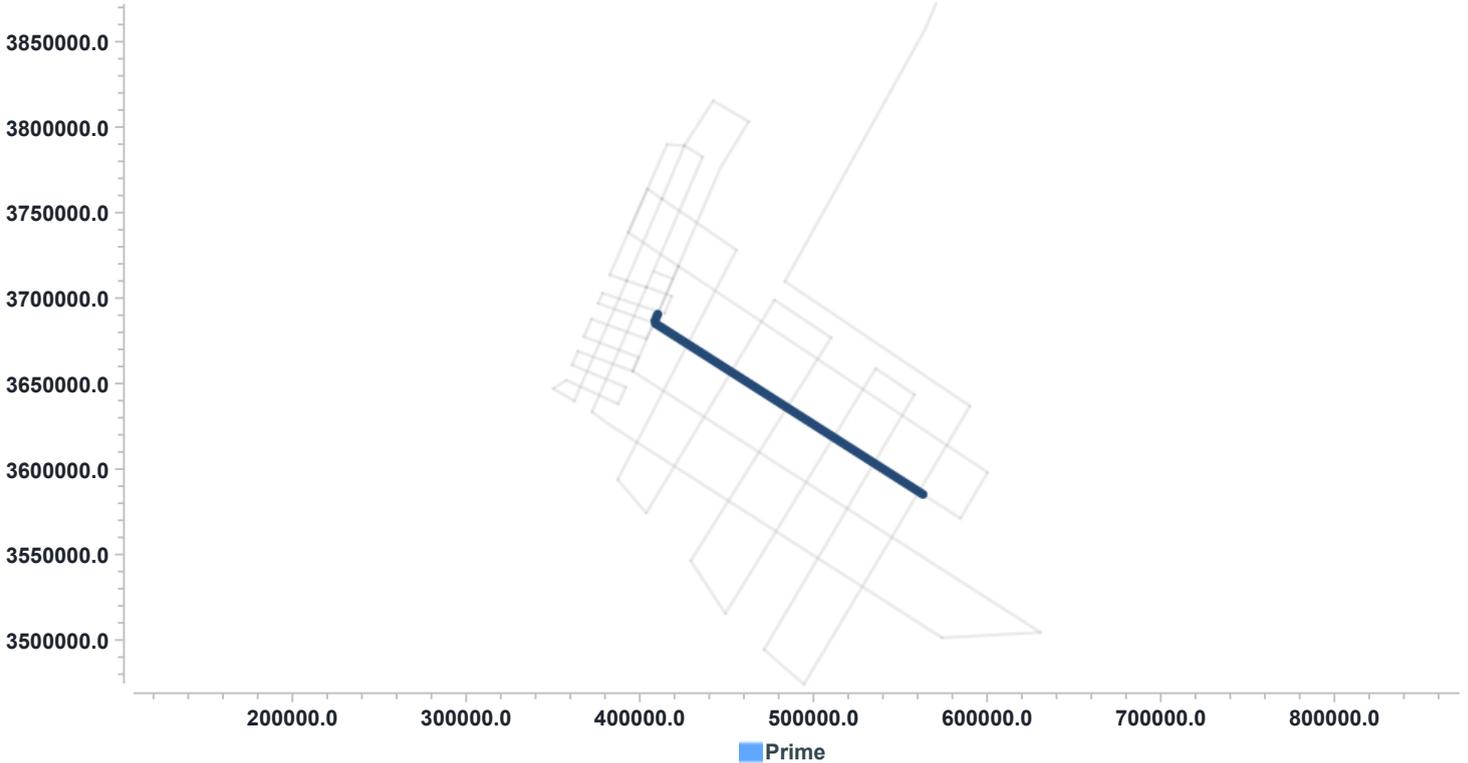
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
54	46	303.2	2028	9371	Prime	183.60	4.017	Complete	Complete
55	47	23.0	1062	1220	Prime	3.98	4.266	Midnight	Part
Total						187.58			

Production Totals (Accpt Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	187.58	561.83	3427.03	3427.03
Combined	187.58	561.83	3427.03	3427.03

MGL 2306 Cape Fear: Accpt
5/31/2023 - 5/31/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Wed 31 May

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

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 31 May

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:20	17:20	 Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

6/1/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Thu 01 Jun

Completed line 47, 48 and started line 49.
 A good day of production.
 Line 47 had a high feather angle, it was as expected.

Daily Comment Summaries - Plan for Tomorrow

Thu 01 Jun

Complete Line 50 and start line 51.
 Start gear recovery at 10:00 am local

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	13:25	Production Prime	AC_PP	13.417
Seq: 55 SOL Seq 55 Line:47 FGSP:175061 Hdg:23° Prime EOL Seq 55 Line:47 LGSP:180150 Complete				
13:25	13:32	Prime Line Change	AC_PLC	0.117
Seq: 55 Line: 47 Nominal Prime line change.				
13:32	18:33	Production Prime	AC_PP	5.017
Seq: 56 SOL Seq 56 Line:48 FGSP:181050 Hdg:300.9° Prime EOL Seq 56 Line:48 LGSP:181899 Complete				
18:33	18:42	Prime Line Change	AC_PLC	0.150
Seq: 56 Line: 48 Nominal Prime line change.				
18:42	24:00	Production Prime	AC_PP	5.300
Seq: 57 SOL Seq 57 Line:49 FGSP:181910 Hdg:212.4° Prime MSP Seq 57 Line:49 LGSP:183092 Midnight				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

1-Jun	Hours	% Percent
Acquisition	24.000	100.000
Prime Line Change	0.267	1.111
Production Prime	23.733	98.889
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.479
Currents and Tides	4.917	0.788
Fishing	10.550	1.691
Mobilisation	105.983	16.985
Deployment	23.883	3.827
Mob Ashore	65.000	10.417
Transit to Prospect	17.100	2.740
Acquisition	482.183	77.273
Infill Line Change	0.250	0.040
Prime Line Change	13.950	2.236
Production Prime	467.983	74.997
DownTime	20.367	3.264
Nav Systems In-Sea	17.033	2.730
Towing Source	3.333	0.534
Total	624.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept Main km by Shotpoint) - Full Fold

MCS 6000m

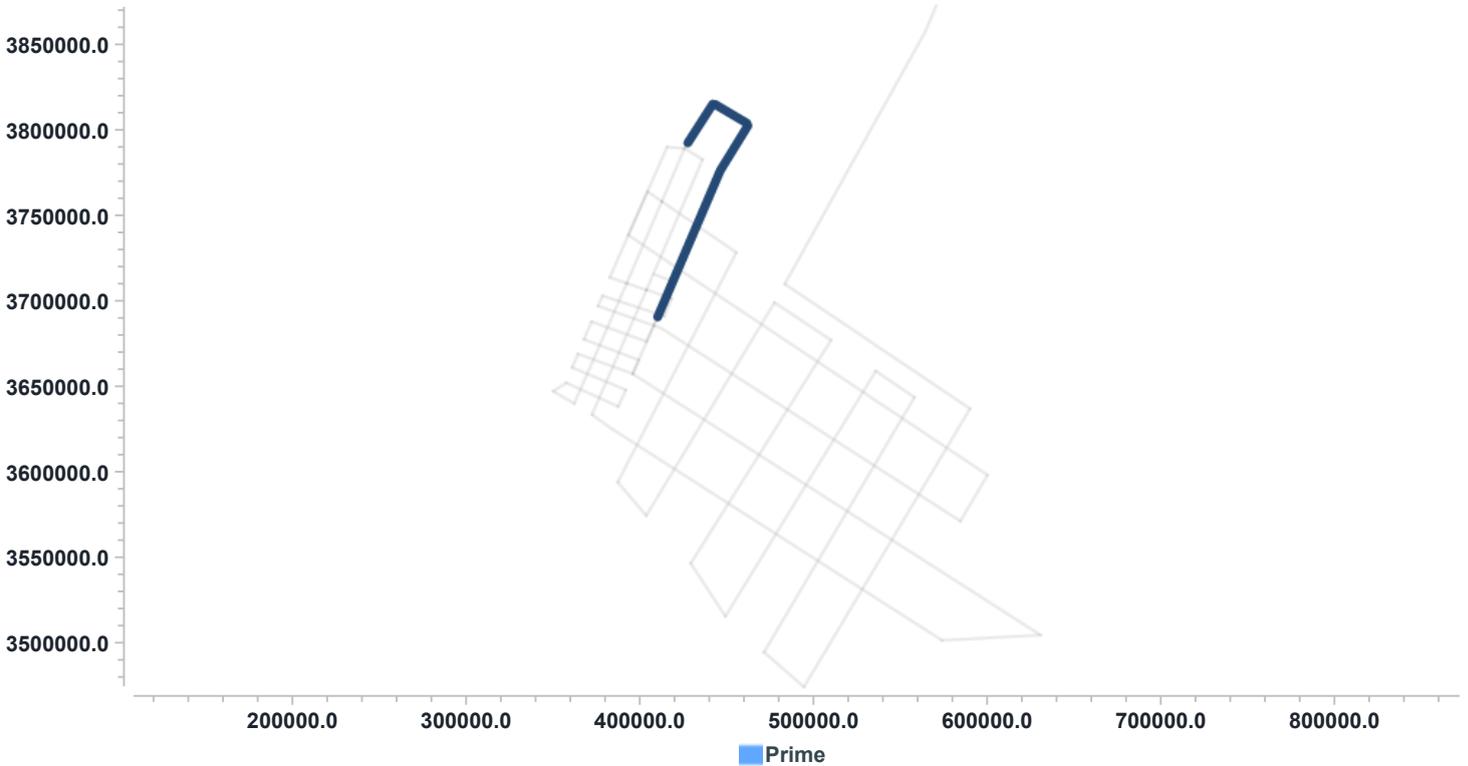
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
55	47	23.0	1221	6151	Prime	123.28	4.936	Complete	Complete
56	48	300.9	1051	1900	Prime	21.25	2.285	Complete	Complete
57	49	212.4	1022	2093	Prime	26.80	2.728	Midnight	Part
Total						171.33			

Production Totals (Accept Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	171.33	733.15	171.33	3598.35
Combined	171.33	733.15	171.33	3598.35

MGL 2306 Cape Fear: Acpt
6/1/2023 - 6/1/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Thu 01 Jun

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
No Major Issues to Report

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

General Purpose Science:
No Major issues to Report.

Daily Comment Summaries - Personnel Onboard

Thu 01 Jun

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer

6/1/2023

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Koray Ergun - Contract Navigator
Jared Gurrslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
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6/2/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Fri 02 Jun

Completed line 49, 50 and 51.
 Started gear recovery at 1400.
 All gear onboard at 23:37.
 Start transiting for Morehead City.

Daily Comment Summaries - Plan for Tomorrow

Fri 02 Jun

Arrive Morehead city and crew change.

Timing Diary (Marcus G Langseth, MCS 6000m)



Start	End	Category	Code	Duration (hrs)
00:00	00:54	Production Prime	AC_PP	0.900
Seq: 57 SOL Seq 57 Line:49 FGSP: 182021 Hdg:212.4° Prime EOL Seq 57 Line:49 LGSP: 183238 Complete				
00:54	01:05	Prime Line Change	AC_PLC	0.183
Seq: 57 Line: 49 Nominal Prime line change.				
01:05	02:52	Production Prime	AC_PP	1.783
Seq: 58 SOL Seq 58 Line:50 FGSP: 184035 Hdg:275.4° Prime EOL Seq 58 Line:50 LGSP: 184363 Complete				
02:52	03:01	Prime Line Change	AC_PLC	0.150
Seq: 58 Line: 50 Nominal Prime line change.				
03:01	14:00	Production Prime	AC_PP	10.983
Seq: 59 SOL Seq 59 Line:51 FGSP: 185023 Hdg:203.4° Prime EOL Seq 59 Line:51 LGSP: 187267 Complete (Last Shot point of MGL 2306)				
14:00	23:37	Recovery	DM_RC	9.617
Demobilising offshore, recovering outboard equipment.				
23:37	24:00	Transit From Prospect	DM_TF	0.383
Demobilizing, In Transit from prospect to Morehead City.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

2-Jun	Hours	% Percent
Acquisition	14.000	58.333
Prime Line Change	0.333	1.389
Production Prime	13.667	56.944
Demobilisation	10.000	41.667
Recovery	9.617	40.069
Transit From Prospect	0.383	1.597
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.387
Currents and Tides	4.917	0.759
Fishing	10.550	1.628
Mobilisation	105.983	16.355
Deployment	23.883	3.686
Mob Ashore	65.000	10.031
Transit to Prospect	17.100	2.639
Acquisition	496.183	76.572
Infill Line Change	0.250	0.039
Prime Line Change	14.283	2.204
Production Prime	481.650	74.329
DownTime	20.367	3.143
Nav Systems In-Sea	17.033	2.629
Towing Source	3.333	0.514
Demobilisation	10.000	1.543
Recovery	9.617	1.484
Transit From Prospect	0.383	0.059
Total	648.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2

MCS 6000m

String Separation:	6 m	String length:	0 m		
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Production Listing (Acpt Main km by Shotpoint) - Full Fold

MCS 6000m

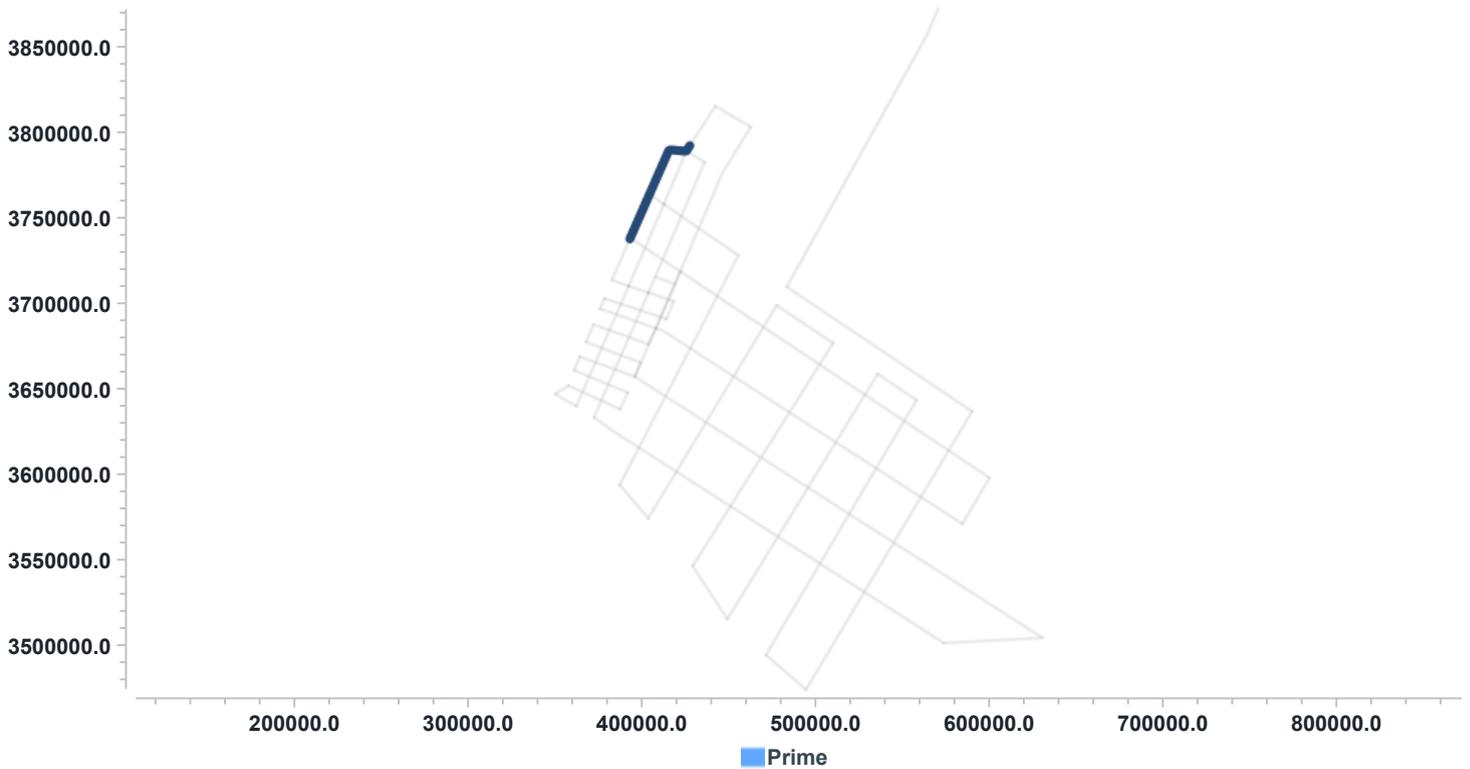
Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
57	49	212.4	2094	2239	Prime	3.65	2.650	Complete	Complete
58	50	275.4	1036	1364	Prime	8.22	2.483	Complete	Complete
59	51	203.4	1024	3268	Prime	56.13	2.758	Complete	Complete
Total						68.00			

Production Totals (Acpt Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	68.00	801.15	239.33	3666.35
Combined	68.00	801.15	239.33	3666.35

MGL 2306 Cape Fear: Acpt
6/2/2023 - 6/2/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Fri 02 Jun

Navigation:

No Major Issues to Report

Information Technology (IT):

No Major Issues to Report

Acquisition (MCS):

No Major Issues to Report

Towing and Handling (Source):

No Major Issues to Report

6/2/2023

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General Purpose Science:

No Major issues to Report.

Daily Comment Summaries - Personnel Onboard

Fri 02 Jun

Technical Staff On-board the Langseth

Cody Bahlau L-DEO OMO Chief Science Officer
 Josh Kasinger L-DEO OMO Chief Source Mechanic
 Brian Agee L-DEO OMO Senior Source Mechanic
 Ray Hatton - Contract Source Mech
 Malcolm Moody - Contract Source Mech
 Gilles Guerin L-DEO OMO Marine Science Technician - Obs
 Riley Lopez L-DEO OMO Marine Science Technician - Obs
 James Alan Delong - Contract Source Observer
 Koray Ergun - Contract Navigator
 Jared Gursslin - MATE Program

PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
 Ana Durazo - RPS PSO
 Kristal Mohammed - RPS PSO
 Jo-Ann Sooker - RPS PSO
 Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
 Hugh Daigle -Research scientist Co-PI
 Nathan Miller - Research scientist Co-PI
 C Jo Grall - Research scientist
 Bill Danforth - Research scientist
 Dave Foster -Research scientist
 Wayne Baldwin - Research scientist
 James Gibson - Postdoc
 Ali Mohammed - GRA Student
 Mason Farnsworth - GRA Student
 Tanner Acquisto - GRA Student
 Emma Le Gall - Ms Student
 Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
16:15	17:15	Chiefs Meeting	Mtgs_Chfs
HSE - Chiefs Meeting			

Daily Total Category	Code	Count
Toolbox Meetings	Mtgs_Tbox	2

6/3/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Daily Comment Summaries - Daily Summary

Sat 03 Jun

Transit to Morehead City.
 At pilot station at 11:00 UTC
 Tied up at ~1300 UTC.
 Start crew change and shipments.

This will be the last daily log of MGL 2306

Daily Comment Summaries - Plan for Tomorrow

Sat 03 Jun

Sail for MGL 2307 Coring

Timing Diary (Marcus G Langseth, MCS 6000m)

Start	End	Category	Code	Duration (hrs)
00:00	13:10	Transit From Prospect	DM_TF	13.167
Demobilizing, In Transit from prospect to Morehead City.				
13:10	24:00	Demob Ashore	DM_DA	10.833
Demobilizing at Morehead City.				

Timing Day By Day (Marcus G Langseth, MCS 6000m)

3-Jun	Hours	% Percent
Demobilisation	24.000	100.000
Demob Ashore	10.833	45.139
Transit From Prospect	13.167	54.861
Day's Total	24.000	100.000

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.302
Currents and Tides	4.917	0.732
Fishing	10.550	1.570
Demobilisation	34.000	5.060
Demob Ashore	10.833	1.612
Recovery	9.617	1.431
Transit From Prospect	13.550	2.016
Mobilisation	105.983	15.771
Deployment	23.883	3.554
Mob Ashore	65.000	9.673
Transit to Prospect	17.100	2.545

Category	Hours	% Percent
Acquisition	496.183	73.837
Infill Line Change	0.250	0.037
Prime Line Change	14.283	2.125
Production Prime	481.650	71.674
DownTime	20.367	3.031
Nav Systems In-Sea	17.033	2.535
Towing Source	3.333	0.496
Total	672.000	

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Listing (Accept Main km) - Prime: Full Fold, Infill: Unknown

MCS 6000m

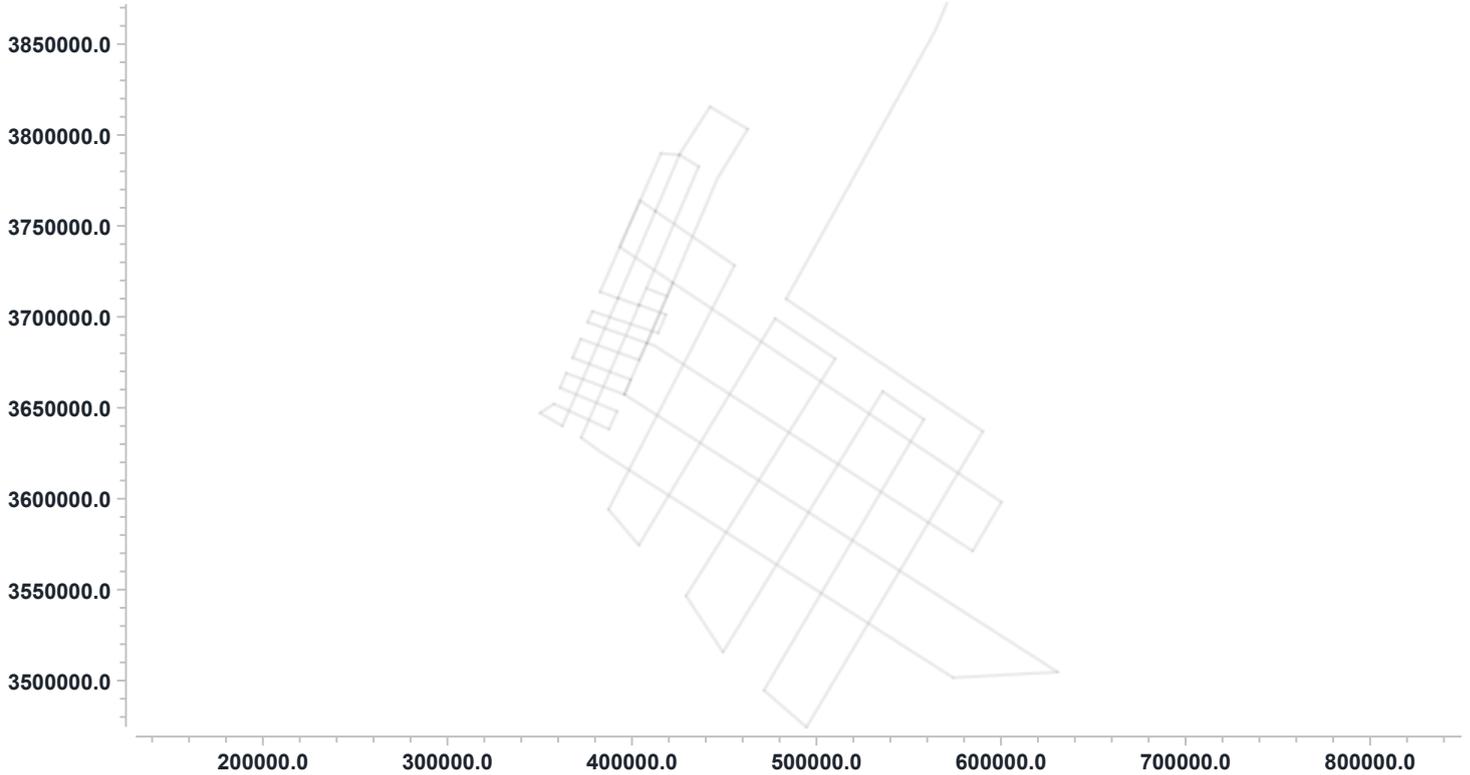
Seq	Line	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
Total					0.00			

Production Totals (Accept Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Day	Week	Month	Project
Prime	0.00	801.15	239.33	3666.35
Combined	0.00	801.15	239.33	3666.35

MGL 2306 Cape Fear: Accpt
6/3/2023 - 6/3/2023
MCS 6000m



Daily Comment Summaries - Daily Comments On Status of Equipment

Sat 03 Jun

Navigation:
No Major Issues to Report

Information Technology (IT):
No Major Issues to Report

Acquisition (MCS):
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 03 Jun

Technical Staff On-board the Langseth

- Cody Bahlau L-DEO OMO Chief Science Officer
- Josh Kasinger L-DEO OMO Chief Source Mechanic
- Brian Agee L-DEO OMO Senior Source Mechanic
- Ray Hatton - Contract Source Mech
- Malcolm Moody - Contract Source Mech
- Gilles Guerin L-DEO OMO Marine Science Technician - Obs
- Riley Lopez L-DEO OMO Marine Science Technician - Obs
- James Alan Delong - Contract Source Observer
- Koray Ergun - Contract Navigator
- Jared Gursslin - MATE Program

6/3/2023

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PSO Staff On-board the Langseth

Cassandra Frey - RPS Lead PSO
Ana Durazo - RPS PSO
Kristal Mohammed - RPS PSO
Jo-Ann Sooker - RPS PSO
Shelby Tobin - RPS PSO

Science Party On-board the Langseth

Anne Becel - Research scientist PI
Hugh Daigle - Research scientist Co-PI
Nathan Miller - Research scientist Co-PI
C Jo Grall - Research scientist
Bill Danforth - Research scientist
Dave Foster - Research scientist
Wayne Baldwin - Research scientist
James Gibson - Postdoc
Ali Mohammed - GRA Student
Mason Farnsworth - GRA Student
Tanner Acquisto - GRA Student
Emma Le Gall - Ms Student
Louis Marin Dupuis - Ms Student

HSE Events Diary (Marcus G Langseth)

Start	End	Category	Code
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5/7/2023 - 6/3/2023

Page 1

Client: Lamont-Doherty Earth Observatory
Job No:
Block: MGL 2306 Cape Fear
Client Contact:
Consultancy:
Job No:

Contractor: Lamont-Doherty Earth Observatory
Job No: MGL2306
Vessel: Marcus G Langseth
Supervisor:
Party Chiefs: Cody Bahlau
Client Reps: Anne Becel / Hugh Daigle

Basic Project Details

MCS 6000m					
General Details					
Record length:	9.5 ms	Sample rate:	1 ms	Shotpoint interval:	25 m
CoS to CNG:	0 m	Fold Coverage:	0		
Cable Details					
No of Cables:	3				
Cable 1					
Chans Per Cable:	552	Front Depth:	6 m	Tail Depth:	6 m
Length:	6000	Group interval:	12.5 m		
Cables 2 - 3					
Chans Per Cable:	0	Front Depth:	0 m	Tail Depth:	0 m
Length:	1	Group interval:	0 m		
Source Details					
No of Sources:	1	Total Volume:	3300 cu ins	Depth:	6
Pressure:	1950 PSI	Volume:	3300	Strings per source:	2
String Separation:	6 m	String length:	0 m		

Production Totals - Report Period (Acpt Main km by Shotpoint) - Full Fold

MCS 6000m

Accepted km	Total
Prime	3666.350
Infill	0.000
Combined	3666.350

Timing Breakdown Summary - Project (Marcus G Langseth, MCS 6000m)

Category	Hours	% Percent
Non-Chargeable StandBy	15.467	2.302
Currents and Tides	4.917	0.732
Fishing	10.550	1.570
Demobilisation	34.000	5.060
Demob Ashore	10.833	1.612
Recovery	9.617	1.431
Transit From Prospect	13.550	2.016
Mobilisation	105.983	15.771
Deployment	23.883	3.554
Mob Ashore	65.000	9.673
Transit to Prospect	17.100	2.545
Acquisition	496.183	73.837
Infill Line Change	0.250	0.037
Prime Line Change	14.283	2.125
Production Prime	481.650	71.674

Category	Hours	% Percent
DownTime	20.367	3.031
Nav Systems In-Sea	17.033	2.535
Towing Source	3.333	0.496
Total	672.000	

Average Production Speed (Marcus G Langseth)

Report Average MPS	Report Average Knots	Project Average MPS	Project Average Knots
2.114	4.109	2.114	4.109

Production Listing (Acpt Main km by Shotpoint) - Full Fold

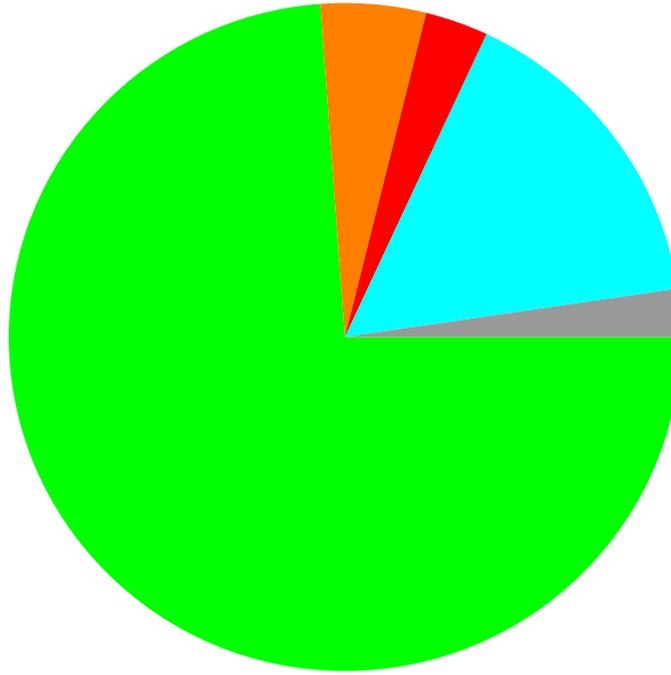
MCS 6000m

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
1	1	202.8	1008	8341	Prime	183.350	4.647	Complete	Complete
2	2	124.3	1057	6118	Prime	126.550	4.892	Complete	Complete
3	3	210.5	1074	7091	Prime	150.450	4.011	Complete	Complete
4	3	210.5	6578	8490	Prime	47.825	3.777	Complete	Complete
5	4	311.3	1065	2206	Prime	28.550	4.464	Complete	Complete
6	5	30.2	1086	7838	Prime	168.825	4.727	Complete	Complete
7	6	304.6	1041	2029	Prime	24.725	3.138	Complete	Complete
8	7	211.2	1060	7849	Prime	169.750	4.303	Complete	Complete
9	8	327.1	721	2456	Prime	43.400	3.992	Complete	Complete
10	9	31.8	1068	7081	Prime	150.350	4.705	Complete	Complete
11	10	304.1	1064	2511	Prime	36.200	4.127	Complete	Complete
12	11	210.7	1039	6713	Prime	141.875	4.356	Complete	Complete
13	12	320.0	1078	2009	Prime	23.300	4.655	Complete	Complete
14	13	27.0	1077	6995	Prime	147.975	4.685	Complete	Complete
15	14	304.8	1077	3071	Prime	49.875	4.601	Complete	Complete
16	15	22.8	1133	2298	Prime	29.150	6.127	Complete	Complete
17	16	122.1	1106	1451	Prime	8.650	3.493	Complete	Complete
19	17	202.9	1045	2371	Prime	33.175	2.174	Complete	Complete
20	14	304.8	1001	3251	Prime	56.275	2.535	Complete	Complete
21	14	304.8	3251	3514	Prime	6.600	3.328	Complete	Complete
22	17	202.9	2131	4264	Prime	53.350	1.884	Complete	Complete
23	20	110.1	1042	1577	Prime	13.400	4.467	Complete	Complete
24	21	202.3	1046	1418	Prime	9.325	2.714	Complete	Complete
25	22	288.5	1065	2466	Prime	35.050	4.024	Complete	Complete
26	23	204.0	1030	1204	Prime	4.375	1.957	Complete	Complete
27	24	109.6	1038	2312	Prime	31.875	3.850	Complete	Complete
28	25	204.4	1066	1384	Prime	7.975	2.385	Complete	Complete
29	26	290.1	1096	2299	Prime	30.100	3.733	Complete	Complete
30	27	203.3	1031	1399	Prime	9.225	3.137	Complete	Complete
31	28	110.8	1041	2309	Prime	31.725	4.585	Complete	Complete
32	29	202.8	1048	1315	Prime	6.700	3.180	Complete	Complete
33	30	290.3	1046	2306	Prime	31.525	3.725	Complete	Complete
34	31	202.9	1088	1311	Prime	5.600	3.169	Complete	Complete
35	32	112.8	1060	2300	Prime	31.025	4.693	Complete	Complete

Seq	Line	Heading	FGSP	LGSP	Prod Type	Production	Ave Knots	Seq Status	Line Status
36	33	204.5	1052	1389	Prime	8.450	3.137	Complete	Complete
37	34	294.9	1061	2297	Prime	30.925	4.154	Complete	Complete
38	35	237.0	1019	1279	Prime	6.525	2.314	Complete	Complete
39	36	120.6	1096	1513	Prime	10.450	4.386	Complete	Complete
40	37	23.2	1067	5486	Prime	110.500	6.677	Complete	Complete
41	20a	289.3	1013	1164	Prime	3.800	1.747	Complete	Complete
42	19	23.4	1485	2093	Prime	15.225	3.117	Complete	Complete
43	14b	125.0	1006	1193	Prime	4.700	1.847	Complete	Complete
44	37a	203.0	1043	3038	Prime	49.900	3.264	Complete	Complete
45	20b	109.2	1069	1922	Prime	21.350	5.043	Complete	Complete
46	18	291.4	1002	1432	Prime	10.775	4.247	Complete	Complete
47	39	203.3	600	4151	Prime	88.800	3.613	Complete	Complete
48	40	126.6	1080	10629	Prime	238.750	5.072	Complete	Complete
49	41	86.9	-386	3511	Prime	97.450	4.711	Complete	Complete
50	42	303.0	762	12176	Prime	285.375	4.002	Complete	Complete
51	43	23.2	1001	3541	Prime	63.525	5.067	Complete	Complete
52	44	124.1	1094	9561	Prime	211.700	4.612	Complete	Complete
53	45	210.2	1061	2201	Prime	28.525	3.896	Complete	Complete
54	46	303.2	1043	9371	Prime	208.225	4.017	Complete	Complete
55	47	23.0	1062	6151	Prime	127.250	4.936	Complete	Complete
56	48	300.9	1051	1900	Prime	21.250	2.285	Complete	Complete
57	49	212.4	1022	2239	Prime	30.450	2.650	Complete	Complete
58	50	275.4	1036	1364	Prime	8.225	2.483	Complete	Complete
59	51	203.4	1024	3268	Prime	56.125	2.758	Complete	Complete
Total						3666.350			

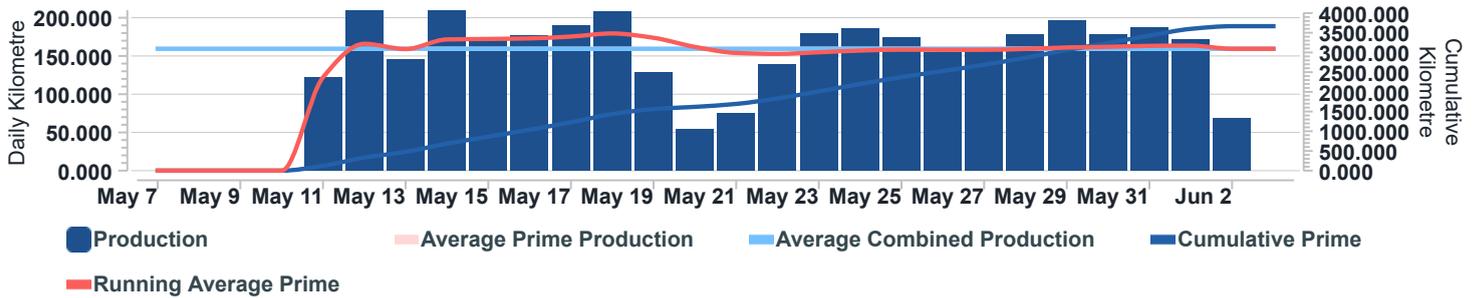
Timing Category Totals

Marcus G Langseth



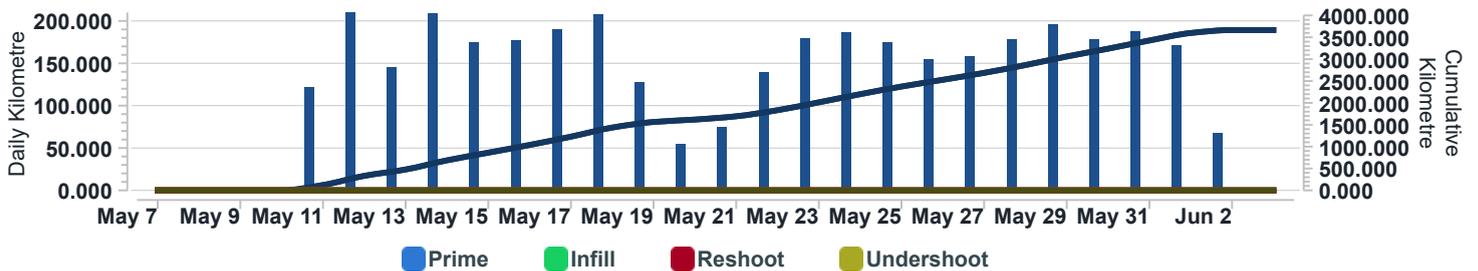
- Acquisition (73.84% - 496.18 hrs)
- Demobilisation (5.06% - 34.00 hrs)
- DownTime (3.03% - 20.37 hrs)
- Mobilisation (15.77% - 105.98 hrs)
- Non-Chargeable StandBy (2.30% - 15.47 hrs)

Accpt Kilometre



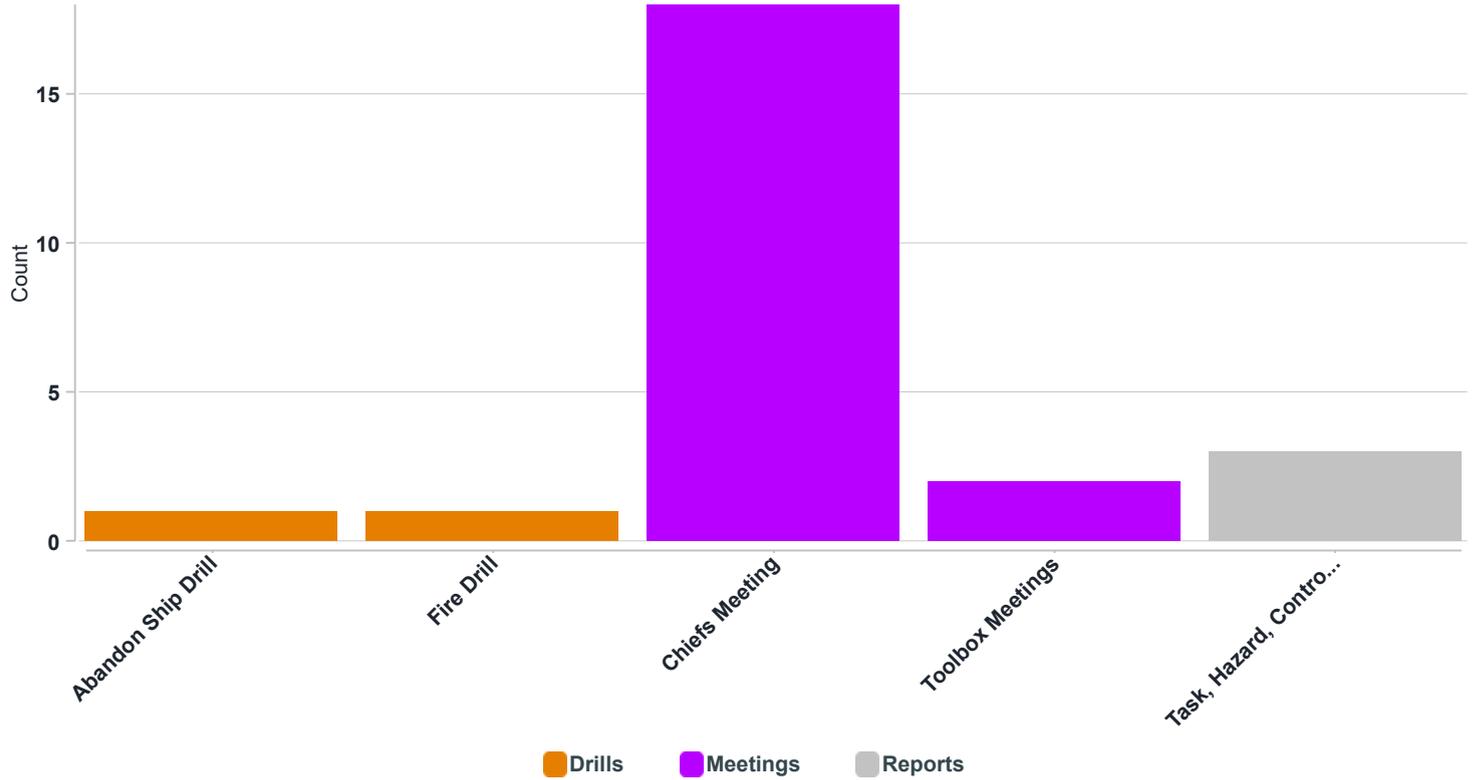
Accpt Kilometre

MCS 6000m



HSE Event Totals - Project

Marcus G Langseth



MGL 2306 Cape Fear: Accpt
5/7/2023 - 6/3/2023

