

# Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales
Area	Puerto Rico Trench - OBS
Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316001CF1P1
SEQUENCE	1
DIRECTION	274.2-179

	SP#
SOL	959
EOL	1219

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL
SP	959	1219
Date MM/DD/YY	11/24/23	11/25/23
Time UTC	22:31	07:17
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	E 15 kts	NE 16 kts
Sea State (m)	1 m	1 m
Water Depth (m)	5480 m	5360 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Semi-circular "Fan" shaped line, run counterclockwise from apex then across E-W and back to apex
S1G2 disabled from start of line - 35 guns - 6240 in3
Sequence initially planned to include entire fan, but interrupted at first 90degree turn after navigation system locked up

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
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Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316002CF1P2
SEQUENCE	2
DIRECTION	88.9

	SP#
SOL	1229
EOL	1469

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL
SP	1229	1449
Date MM/DD/YY	11/25/23	11/25/23
Time UTC	07:33	16:03
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	NE 14 kts	NE 13 kts
Sea State (m)	1 m	1.5 m
Water Depth (m)	5380 m	5530 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Semi-circular "Fan" shaped line, run counterclockwise from apex then across E-W and back to apex
S1G2 disabled from start of line - 35 guns - 6240 in3
Second segment of the fan: W-E traverse

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
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Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316003CF1P3
SEQUENCE	3
DIRECTION	~2-274

	SP#
SOL	1476
EOL	1648

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL
SP	1476	1648
Date MM/DD/YY	11/25/23	11/25/23
Time UTC	16:16	21:39
Volume	6240 in3	6240 in3
Wind	NE 15 kts	NE 12 kts
Sea State	1.5 m	1 m
Water Depth	5550 m	5310 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Semi-circular "Fan" shaped line, run counterclockwise from apex then across E-W and back to apex
S1G2 disabled from start of line - 35 guns - 6240 in3
Third segment of the fan: quarter of a circle returning to the apex

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales
Area	Puerto Rico Trench - OBS
Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316004CNAP1
SEQUENCE	4
DIRECTION	180.5

	SP#
SOL	2002
EOL	2376

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	
SP	2002	2376
Date MM/DD/YY	11/25/23	11/26/23
Time UTC	22:12	10:45
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	NE 12 kts	E 12 kts
Sea State (m)	1 m	1 m
Water Depth (m)	5140 m	7950 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
North-South line cutting through the two central fans
S1G2 disabled entire line - 35 guns - 6240 in3
Shots 2198-2201 were missed during a failure of the compressors

Time UTC	SP	Description
22:12	2002	SOL MGL2316004CNAP1- S1G2 disabled - 35 guns - 6240 in3
22:33	2013	Crossing over OBS 38
23:03	2029	Crossing over OBS 37
23:32	2045	Crossing over OBS 36
00:01	2060	First shot 11/26
00:03	2061	Crossing over OBS 35
00:35	2077	Crossing over OBS 34
01:07	2093	Crossing over OBS 33
01:38	2109	Crossing over OBS 32
02:09	2125	Crossing over OBS 31
03:03	2152	Crossing over OBS 30
04:31	2197	Firing interrupted because of compressor failure - LSP
	2198-2201	Missed shots while restoring compressors
04:44	2202	Start of ramp-up after restoring compressors - 1 gun, 40 in3
04:47	2203	6 guns - 280 in3
04:50	2204	11 guns - 670 in3
04:54	2205	16 guns - 1240 in3
04:57	2206	21 guns - 2180 in3
05:00	2207	26 guns - 3280 in3
05:03	2208	30 guns - 4440 in3
05:06	2209	End of ramp-up - first shot at full volume: 6240 in3 - 35 guns
06:32	2252	Crossing over OBS 28
08:06	2299	Crossing over OBS 27
10:38	2373	Crossing over OBS 26
10:45	2376	EOL MGL2316004CNAP1 - S1G2 disabled - 35 guns - 6240 in3



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Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316005CF2P1
SEQUENCE	5
DIRECTION	274-359

	SP#
SOL	3029
EOL	3215

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	
SP	3029	3215
Date MM/DD/YY	11/26/23	11/26/23
Time UTC	10:50	18:27
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	E 12 kts	E 15 kts
Sea State (m)	1 m	1 m
Water Depth (m)	7950 m	5810 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
First segment of a semi-circular fan (Central fan 2), clockwise from south apex to west
S1G2 disabled entire line - 35 guns - 6240 in3
String 2 disabled for recovery and repair of S2G1 between SP 3115 and 3169

[illegible]

# Observers Log

<b>Vessel</b>	<b>Marcus G. Langseth</b>
<b>Client</b>	<b>Pablo Canales</b>
<b>Area</b>	<b>Puerto Rico Trench - OBS</b>
<b>Job Number</b>	<b>MGL2316</b>

<b>Shift</b>	<b>00:00-12:00</b>	<b>12:00-24:00</b>
<b>Science Officer</b>	<b>Todd Jensvold</b>	
<b>Acquisition</b>	<b>Gilles Guérin</b>	<b>Aaron Martin</b>
<b>Navigation</b>	<b>Gilles Guérin</b>	<b>Aaron Martin</b>

LINE	MGL2316006CF2P2
SEQUENCE	6
DIRECTION	88.8

	<b>SP#</b>
<b>SOL</b>	<b>3222</b>
<b>EOL</b>	<b>3471</b>

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	
<b>SP</b>	3222	3471
<b>Date MM/DD/YY</b>	11/26/23	11/27/23
<b>Time UTC</b>	18:41	03:20
<b>Volume</b>	6240 in3	6240 in3
<b>Wind</b>	E 14 kts	E 15 kts
<b>Sea State</b>	1 m	1 m
<b>Water Depth</b>	5750 m	6100 m

Abbreviations	
	SOL/EOL - Start/End of Line
	FGSP- First Good SP
	LGSP - Last Good SP

[illegible]

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales
Area	Puerto Rico Trench - OBS
Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316007CF2P3
SEQUENCE	7
DIRECTION	184.2-270

	SP#
SOL	3474
EOL	3672

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
SP	3474	3672
Date MM/DD/YY	11/27/23	11/27/23
Time UTC	03:22	09:25
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	E 17 kts	E 13 kts
Sea State (m)	1 m	1 m
Water Depth (m)	6115 m	7980 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
3rd segment of a semi-circular fan (Central fan 2), from East back to apex
S1G2 disabled entire line - 35 guns - 6240 in3
SP 3673 was triggered after the end of line. Gun header, timing and coordinates are invalid

[illegible]

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<b>Area</b>	<b>Puerto Rico Trench - OBS</b>
<b>Job Number</b>	<b>MGL2316</b>

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Aaron Martin
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316008CNBP1
SEQUENCE	8
DIRECTION	180.6

	<b>SP#</b>
<b>SOL</b>	<b>4005</b>
<b>EOL</b>	<b>4437</b>

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
<b>SP</b>	4005	4437
<b>Date MM/DD/YY</b>	11/27/23	11/27/23
<b>Time UTC</b>	09:33	23:12
<b>Volume (cu in.)</b>	6240 in3	6240 in3
<b>Wind (kts)</b>	E 15 kts	E18 kts
<b>Sea State (m)</b>	1 m	1.5 m
<b>Water Depth (m)</b>	8100 m	1920 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
North-South "Central North" line continuing Sequence 4 (MGL2316004CNAP4)
S1G2 disabled entire line - 35 guns - 6240 in3

[illegible]



# Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales
Area	Puerto Rico Trench - OBS
Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Ian Davis
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316009CSP1
SEQUENCE	9
DIRECTION	180.6

	SP#
SOL	5001
EOL	5700

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	120			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
SP	5001	5700
Date MM/DD/YY	11/28/23	11/29/23
Time UTC	23:08	08:34
Volume (cu in.)	6240 in3	6240 in3
Wind (kts)	E14 kts	E 17 kts
Sea State (m)	1 m	1 m
Water Depth (m)	1579 m	4680 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Central South line, south of the Island. 120m between shot points.
SOL-EOL; Multiple Gun Timing errors Guns 3-1 (360 cu) =>1.5ms/2.0 ms ~ <4.0ms
SOL-EOL;Gun 1-2 (360 in3) Disabled; String #1 Vol 1290 in3; Total array Vol 6240 in3
SOL-EOL; Aux ch's #2, #5 & #8 are Weak/Dead; Ch #1 is intermitant -Weak/Dead dt X-feed

Time UTC	SP	Description
23:08	5001	SOL MGL2316009CSP1 - Gun 1-2 (360 in3) disabled - 35 guns - 6240 in3
23:25	5020	Crossed OBS S11
00:00	5064	First SP 11/29
00:19	5088	Crossed OBS S10
01:13	5156	Crossed OBS S09
02:09	5224	Crossed OBS S08
03:04	5292	Crossed OBS S07
03:58	5360	Crossed OBS S06
04:52	5428	Crossed OBS S05
05:48	5496	Crossed OBS S04
06:43	5564	Crossed OBS S03
07:40	5632	Crossed OBS S02
08:34	5700	Crossed OBS S01
08:34	5700	EOL MGL2316009CSP1 - Gun 1-2 (360 in3) disabled - 35 guns - 6240 in3

# Observers Log

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Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Ian Davis
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316010EP1
SEQUENCE	10
DIRECTION	14.3

	SP#
SOL	5993
EOL	6287

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
SP	5993	6287
Date MM/DD/YY	12/05/23	12/06/23
Time UTC	15:34	01:35
Volume	6600 in3	6600 in3
Wind	E 17 kts	E 12 kts
Sea State	1.5 m	1.5 m
Water Depth	3160 m	6910 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
SOL-EOL Aux ch's:- #2, #5 & #8 are weak/dead.
SOL-EOL Gun 3-1 (360 cu) multiple timing errors => +/- 2ms;
Line aborted after power outage at SP 6287
*** Orca continued sending triggers after failure - Shots recorded by Orca and gunlink after SP 6287 should be discarded***

Time UTC	SP	Description
15:34	5993	SOL MGL2316010EP1 - 36 guns - 6600 in3
16:15	6013	Crossed OBS S69
17:04	6037	Crossed OBS S70
17:54	6061	Crossed OBS S71
18:44	6085	Crossed OBS S72
19:32	6109	Crossed OBS S73
20:13	6130	Crossed OBS S74
20:58	6154	Crossed OBS S75
21:59	6185	Crossed OBS S76
23:02	6216	Crossed OBS S77
00:01	6244	First shot 12/06
00:08	6247	Crossed OBS S78
01:15	6278	Crossed OBS S79
01:35	6287	EOL MGL2316010EP1 - 36 guns - 6600 in3

# Observers Log

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Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Ian Davis
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316011E2P1
SEQUENCE	11
DIRECTION	14.3

	SP#
SOL	6581
EOL	6967

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
SP	6581	6970
Date MM/DD/YY	12/06/23	12/06/23
Time UTC	02:55	16:15
Volume	6600 in3	6600 in3
Wind	E 13 kts	SE 12 kts
Sea State	1.5 m	1.5 m
Water Depth	6878 m	5128 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Continuation of Seq 10 (MGL2316010EP1); Line was aborted after power Outage.
Different name (E2) because of limitations with unique SP numbers.
300 added to SP - i.e. SP 6581, Seq 11, MGL2316011E2P1 = SP 6281, Seq 10, MGL2316010EP1
SOL-EOL Aux ch's:- #2, #5 & #8 are weak/dead.
SOL-EOL Gun 3-1 (360 in3) multiple timing errors => +/- 2ms;

Time UTC	SP	Description
02:55	6581	SOL MGL2316011E2P1 - 36 guns - 6600 in3
03:09	6587	Last overlap with previous sequence (SP 6587, MGL2316011E2P1 = SP 6287, MGL2316010EP1)
03:57	6609	Crossed OBS S80
05:32	6652	Crossed OBS S81
07:07	6697	Crossed OBS S82
08:26	6734	Crossed OBS S83
09:13	6756	Crossed OBS S84
09:59	6778	Crossed OBS S85
10:44	6800	Crossed OBS S86
11:31	6822	Crossed OBS S87
12:15	6843	Crossed OBS S88
13:09	6869	Crossed OBS S89
14:00	6894	Crossed OBS S90
14:47	6919	Crossed OBS S91
15:33	6944	Crossed OBS S92
16:15	6967	EOL MGL2316011E2P1 - 36 guns - 6600 in3

# Observers Log

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Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Ian Davis
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316012EFP1
SEQUENCE	12
DIRECTION	Race track, counterclockwise

	SP#
SOL	6994
EOL	8003

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	300			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
SP	6994	8003
Date MM/DD/YY	12/06/23	12/08/23
Time UTC	16:20	03:49
Volume	6600 in3	6240 in3
Wind	SE 12 kts	NE 17 kts
Sea State	1.5 m	1.0 m
Water Depth	5160 m	5159 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Race track line covering the two original eastern fans, navigating counterclockwise.
SOL-EOL Aux ch's:- #2, #5 & #8 are weak/dead.
SOL-EOL Gun 3-1 (360 cu) multiple timing errors => +/- 2ms;
Gun 1-1 (360 in3) disabled at SP 7230 because of misfires & erratic Gun Timing errors (=> +/- 30 ms); 35 guns, 6240 in3
SP 7559- 7568 - lower pressure because of malfunctioning valve; SP 7564- 7568 Gun Vol 4950 in3

Time UTC	SP	Description
16:20	6994	SOL MGL2316012EFP1 - 36 guns - 6600 in3
21:58-22:10	7156-7162	Gun 1-1 (360 cu) Misfired 7 shots ( SP 7156-7162) - 35 guns,6240 in3
23:28	7200-7222	SP's 7200-7222; Gun 1-1 Gun Timing drifting => 25 ms
00:01	7217	First shot,12/07
00:27	7230	Gun 1-1 (360 cu) Disabled after multiple firing failures.35 guns - 6240 in3
09:27	7497	Crossing OBS 80 at apex of race track
11:46	7559	Pressure dropped (10 Shots) to 1700 psi then < 1400 psi - cause unknown at the time
11:57-12:07	7564-7568	Array#1 disabled, assuming the leak was the reason for pressure drop - 27 guns, 4950 in3
12:10	7569	Cause of pressure drop identified: a valve had opened because of vibrations had to be closed - first shot at full pressure
12:10	7569	Array 1 back online - 35 guns, 6240 in3
00:00	7888	First shot,12/08
03:49	8003	EOL MGL2316012EFP1 - 35 guns - 6240 in3



# Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales
Area	Puerto Rico Trench - OBS
Job Number	MGL2316

Shift	00:00-12:00	12:00-24:00
Science Officer	Todd Jensvold	
Acquisition	Gilles Guérin	Ian Davis
Navigation	Gilles Guérin	Aaron Martin

LINE	MGL2316013TEST1
SEQUENCE	13
DIRECTION	270.1

	SP#
SOL	8111
EOL	8216

Streamer Parameters				
	1	2	3	4
Length (m)	NA			
Auxiliaries	NA			
Shotpoint Interval: (m)	120			
Offset COS - CNG (m)	NA			
Group Interval: (m)	NA			
Number of channels	NA			
Streamer Depth (m)	NA			

Source Parameters	
Total Volume	Bolt Guns 6600 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	12
Sub-array Separation	6
COS to COS	Single Source

Description	SOL/FGSP	EOL/LGSP
SP	8111	8216
Date MM/DD/YY	12/12/23	12/12/23
Time UTC	03:12	04:34
Volume	40 in3	6600 in3
Wind	E 19 kts	NE 22 kts
Sea State	1.5 m	1.5 m
Water Depth	1800 m	1890 m

Abbreviations
SOL/EOL - Start/End of Line
FGSP- First Good SP
LGSP - Last Good SP

General / Line Comments
Test line started while returning to line CNR
Started with ramp-up - 1 gun, 40 in3
Only 31 guns firing at the end of ramp-up. Arrays 2 and 3 were power cycled and replugged with various volume changes to get to full volume
FGSP (full volume, 36 guns, 6600 in3): 8166
SOL-EOL Aux ch's:- #2, #5 & #8 are weak/dead.

[illegible]



Time UTC	SP	Description
04:38	9013	SOL MGL2316014CNRP1 - 36 guns - 6600 in3
05:52	9109	Going over OBS S40
06:23	9150	Going over OBS S41
06:56	9192	Going over OBS S42
08:20	9301	Going over OBS S43
10:33	9478	Going over OBS S44
11:38	9567	Going over OBS S45
12:47	9659	Going over OBS S46
19:48	10213	Going over OBS S47
20:49	10294	Going over OBS S48
23:48	10534	Going over OBS S49
00:00	10550	First shot, 12/13
01:21	10655	Going over OBS S50