

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314001WE07P1
SEQUENCE	1
DIRECTION	85.3

	SP#	FFID	Raw SegD
SOL	880	1	17
EOL	4099	3181	2341

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	6.25			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	3
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	880	4099
Date MM/DD/YY	10/30/23	10/30/23
Time UTC	13:43	16:57
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E18 kts	NE11 kts
Sea State (m)	1 m	1 m
Water Depth (m)	340 m	360 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Line acquired at 3 sec record length, shot point interval 6.25.

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314002WE05P1
SEQUENCE	2
DIRECTION	265.1

	SP#	FFID	Raw SegD
SOL	6564	3182	2354
EOL	1070	8676	6196

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	6.25			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	3
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	6564	1070
Date MM/DD/YY	10/30/23	10/30/23
Time UTC	18:11	23:31
Volume (cu in.)	90 in3	90 in3
Wind (kts)	NE9 kts	E11 kts
Sea State (m)	1 m	1 m
Water Depth (m)	465 m	800 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Line acquired at 3 sec record length, shot point interval 6.25.

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314003WE04P1
SEQUENCE	3
DIRECTION	85.6

	SP#	FFID	Raw SegD
SOL	1067	8677	6205
EOL	4024	11634	9180

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL/LGSP
SP	1067	4024
Date MM/DD/YY	10/30/23	10/31/2023
Time UTC	23:51	3:59
Volume (cu in.)	90 in3	90 in3
Wind (kts)	NE 11 kts	E 20 kts
Sea State (m)	1 m	1 m
Water Depth (m)	900 m	293 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Line acquired at 4 sec record length, shot point interval 12.5.

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314004WE06P1
SEQUENCE	4
DIRECTION	

	SP#	FFID	Raw SegD
SOL	5363	11635	9190
EOL	3917	13079	10228

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	6.25			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	3
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	5363	3917
Date MM/DD/YY	10/31/2023	10/31/23
Time UTC	05:03	06:30
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 16.3 kts	E 17 kts
Sea State (m)	1 m	1 m
Water Depth (m)	271 m	545 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Line acquired at 3 sec record length, shot point interval 6.25.
Line aborted early after streamer failure - LGSP 3953 - Last Shot recorded 3917
Lat shot triggered by Orca: SP 3540 @ 06:52

Abbreviations	
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FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]



# Observers Log

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Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314005WE06P2
SEQUENCE	5
DIRECTION	265.0

	SP#	FFID	Raw SegD
SOL	4732	13080	10234
EOL	1001	16810	12923

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	6.25			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	3
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	4732	1001
Date MM/DD/YY	10/31/2023	10/31/23
Time UTC	13:03	16:47
Volume (cu in.)	90 in3	90 in3
Wind (kts)	NE 16.1 kts	SE 14 kts
Sea State (m)	1 m	1 m
Water Depth (m)	535 m	480 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Line acquired at 3 sec record length, shot point interval 6.25.
Sequence 5 is a continuation of sequence 4 that was aborted after streamer failure

Abbreviations	
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FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314006SN05P1
SEQUENCE	6
DIRECTION	171.5

	SP#	FFID	Raw SegD
SOL	1001	16811	12935
EOL	2843	18653	14805

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1001	2843
Date MM/DD/YY	10/31/2023	10/31/23
Time UTC	18:15	20:50
Volume (cu in.)	90 in3	90 in3
Wind (kts)	SE 14 kts	SE 11 kts
Sea State (m)	1 m	1 m
Water Depth (m)	435 m	2100 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314007SN06P1
SEQUENCE	7
DIRECTION	354.5

	SP#	FFID	Raw SegD
SOL	2843	18654	14814
EOL	1001	20496	16607

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	2843	1001
Date MM/DD/YY	10/31/23	10/31/23
Time UTC	21:17	23:46
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E12 kts	E 11 kts
Sea State (m)	1 m	1 m
Water Depth (m)	2360 m	390 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314008SN07P1
SEQUENCE	8
DIRECTION	178.8

	SP#	FFID	Raw SegD
SOL	1001	20497	16627
EOL	2449	21943	18093

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1001	2449
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	00:21	02:23
Volume (cu in.)	90 in3	90 in3
Wind (kts)	NE 9 kts	E 14 kts
Sea State (m)	1 m	1.5 m
Water Depth (m)	540 m	1890 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
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FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]



# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314009SN09P1
SEQUENCE	9
DIRECTION	24.9

	SP#	FFID	Raw SegD
SOL	2082	21944	18112
EOL	1001	23025	19206

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	2082	1001
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	03:14	04:45
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 17 kts	NE 10 kts
Sea State (m)	1.5 m	1 m
Water Depth (m)	1380 m	360 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314010SN08P1
SEQUENCE	10
DIRECTION	190.9

	SP#	FFID	Raw SegD
SOL	1001	23026	19220
EOL	2940	24965	21228

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1001	2940
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	05:13	08:00
Volume (cu in.)	90 in3	90 in3
Wind (kts)	NE 12 kts	E 15 kts
Sea State (m)	1 m	1 m
Water Depth (m)	380 m	1726 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314011SN04P1
SEQUENCE	11
DIRECTION	349.0

	SP#	FFID	Raw SegD
SOL	2729	24966	21240
EOL	1001	26694	23006

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	2729	1001
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	08:22	10:49
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 16 kts	E 18.2 kts
Sea State (m)	1 m	1 m
Water Depth (m)	1873 m	362.1 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

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Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314012SN03P1
SEQUENCE	12
DIRECTION	170.3

	SP#	FFID	Raw SegD
SOL	1003	26696	23025
EOL	2547	28240	24582

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1003	2547
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	11:07	13:16
Volume (cu in.)	90 in3	90 in3
Wind (kts)	SE 11.7 kts	E21.3 kts
Sea State (m)	1 m	1 m
Water Depth (m)	595 m	1886.4 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
SP 1002, FFID 26695 was recorded by Seal, but not in Orca - no valid navigation for this shot

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]



# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314013SN02P1
SEQUENCE	13
DIRECTION	350.8

	SP#	FFID	Raw SegD
SOL	2441	28241	24604
EOL	1001	29681	26053

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	2441	1001
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	13:53	15:54
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 19 kts	E 14.8 kts
Sea State (m)	1 m	1 m
Water Depth (m)	1896 m	451.4 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314014SN01P1
SEQUENCE	14
DIRECTION	173.0

	SP#	FFID	Raw SegD
SOL	1001	29682	26080
EOL	2419	31100	27555

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1001	2419
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	16:22	18:25
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 15 kts	E 15 kts
Sea State (m)	1 m	1 m
Water Depth (m)	550 m	1940 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314015WE01P1
SEQUENCE	15
DIRECTION	173.0

	SP#	FFID	Raw SegD
SOL	1001	31101	27569
EOL	3417	33517	30074

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1001	3417
Date MM/DD/YY	11/01/23	11/01/23
Time UTC	19:26	22:54
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 15 kts	E 17 kts
Sea State (m)	1 m	1 m
Water Depth (m)	1880 m	1650 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314016WE02P1
SEQUENCE	16
DIRECTION	264.9

	SP#	FFID	Raw SegD
SOL	3663	33518	30090
EOL	1012	36169	32767

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	3663	1012
Date MM/DD/YY	11/02/23	11/02/23
Time UTC	00:08	03:51
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 17 kts	E 18 kts
Sea State (m)	1.5 m	1.5 m
Water Depth (m)	795 m	1350 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments
Noise turn at end of line

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]



# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314017WE03P1
SEQUENCE	17
DIRECTION	86.1

	SP#	FFID	Raw SegD
SOL	1029	36170	32775
EOL	3829	38970	35657

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1029	3829
Date MM/DD/YY	11/02/23	11/02/23
Time UTC	04:18	8:18
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 29 kts	NE 13.1 kts
Sea State (m)	1.5 m	1.5 m
Water Depth (m)	1190 m	421 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314018SN11P1
SEQUENCE	18
DIRECTION	207.1

	SP#	FFID	Raw SegD
SOL	1001	38971	35071
EOL	3306	41273	38005

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	1001	3306
Date MM/DD/YY	11/2/2023	11/2/2023
Time UTC	09:09	12:21
Volume (cu in.)	90 in3	90 in3
Wind (kts)	NE 11 kts	E 16.5 kts
Sea State (m)	1 m	1 m
Water Depth (m)	425 m	2973 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]

# Observers Log

Vessel	Marcus G. Langseth
Client	USGS - Uri Ten Brink
Area	South Puerto Rico
Job Number	MGL2314

Shift	00:00-12:00	12:00-24:00	
Science Officer	Cody Bahlau		
Acquisition	Cody Bahlau	Gilles Guérin	
Navigation	Aaron Marin	Koray Ergun	

LINE	MGL2314019SN10P1
SEQUENCE	19
DIRECTION	20.5

	SP#	FFID	Raw SegD
SOL	3356	41274	38035
EOL	965	43664	40385

Streamer Parameters				
	1	2	3	4
Length (m)	900			
Auxiliaries	NA			
Shotpoint Interval: (m)	12.5			
Offset COS - CNG (m)	99.75			
Group Interval: (m)	6.25			
Number of channels	144			
Streamer Depth (m)	4			

Source Parameters	
Total Volume	GI guns - 90 in3
Work Pressure	1900psi +/- 100psi
Dual Source	no
Depth	3 m
Sub-array Separation	0
COS to COS	single source

Recording Parameters	
Record Length	4
Total recording delay	0
Sample Rate	0.5 ms
Polarity	SEGD standard
Low-Cut	3Hz analog
Hi-Cut	200Hz, 270dB/octave
File Format	SEGD

Description	SOL/FGSP	EOL
SP	3356	965
Date MM/DD/YY	11/2/2023	11/2/2023
Time UTC	12:43	15:59
Volume (cu in.)	90 in3	90 in3
Wind (kts)	E 19.8 kts	E 18 kts
Sea State (m)	1 m	1 m
Water Depth (m)	2928 m	286.7 m

	Degraded/dead Channels
Dead	
Weak	
Noisy	

Auxiliaries	
Aux. 1-12	Gun Nearfield Hydrophone

General / Line Comments

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FOLSP - First Overlap SP	Fa - Feather Angle
BOT/EOT - Begin/End of Tape	SI - Seismic Interference
NDR - No Data Recorded	ITB - Imitation Time Break
NDR - No Data Recorded	ITB - Internal Time Break
N.T.B.P. - Not To Be Processed	

[illegible]