

<b>Observers Log</b>
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Vessel	Marcus G. Langseth
Client	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson		
Acquisition Leader	Raoul Perez 12:00-24:00	Bobby Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>00001</b>	<b>8</b>
<b>SP #</b>	<b>4341 (1)</b>	<b>1001</b>

<b>Line</b>	<b>MGL14052860OL</b>
<b>Sequence</b>	<b>01</b>
<b>Direction</b>	<b>123</b>

Streamer Parameters				
	1	2	3	4
Length (m)	3000	3000		
Auxiliaries	n/a	n/a		
Shotpoint Interval: (m)	12.5	12.5		
Offset CS - CNG (m)	210	210		
Group Interval: (m)	12.5	12.5		
Number of channels	236	236		
Streamer Depth (m)	4.5	7.0		
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	4341	1001
Date MM/DD/YY	07/03/2014	07/03/2014
Time UTC	11:13	16:22
Volume (cu in.)	700in3	700in3in3
Wind (kts)	S 10-15	S 10-15
Sea State (m)	1-2m	1-2m
Water Depth (m)	29.4m	59.5m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments	
SOL NOISY CHANNELS	
EOL NOISY CHANNELS	

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFFSP - Last Full Fold 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	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson		
Acquisition Leader	Raul Perez 12:00-24:00	Bobby Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>9</b>	<b>12</b>
<b>SP #</b>	<b>861</b>	<b>5141</b>

<b>Line</b>	<b>MGL14051948OL</b>
<b>Sequence</b>	<b>02</b>
<b>Direction</b>	<b>303</b>

Streamer Parameters				
	1	2	3	4
Length (m)	3000	3000		
Auxiliaries	n/a	n/a		
Shotpoint Interval: (m)	12.5	12.5		
Offset CS - CNG (m)	210	210		
Group Interval: (m)	12.5	12.5		
Number of channels	236	236		
Streamer Depth (m)	4.5	4.5		
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 <sup>3</sup> in
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz / 276 DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	1001	5141
Date MM/DD/YY	07/03/14	07/04/14
Time UTC	17:35	00:17
Volume (cu in.)	700 <sup>3</sup> in	700 <sup>3</sup> in
Wind (kts)	10-12	W21kts
Sea State (m)	1-2m	1-2m
Water Depth (m)	53.3m	22.2m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	Dave Martinson		
Acquisition Leader	Raul Perez 12:00-24:00	Robert Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Michael Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>13</b>	<b>16</b>
<b>SP #</b>	<b>5141</b>	<b>862</b>

<b>Line</b>	<b>MGL14051012OL</b>
<b>Sequence</b>	<b>03</b>
<b>Direction</b>	<b>267</b>

Streamer Parameters				
	1	2	3	4
Length (m)	3000	3000		
Auxiliaries	n/a	n/a		
Shotpoint Interval: (m)	12.5	12.5		
Offset CS - CNG (m)	210	210		
Group Interval: (m)	12.5	12.5		
Number of channels	236	236		
Streamer Depth (m)	5.5	8.0		
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz / 276 DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	5141	862
Date MM/DD/YY	07/04/14	07/04/14
Time UTC	01:40	08:11
Volume (cu in.)	700in3	700in3
Wind (kts)	W21kts.	W7kts
Sea State (m)	1-2m	1-2m
Water Depth (m)	28.9m	55.4m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments	
SOL NOISY CHANNELS	
EOL NOISY CHANNELS	

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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]

<b>Observers Log</b>
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Vessel	Marcus G. Langseth
Client	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	Dave Martinson		
Acquisition Leader	Raul Perez 12:00-24:00	Robert Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Michael Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>17</b>	<b>20</b>
<b>SP #</b>	<b>890</b>	<b>4562</b>

<b>Line</b>	<b>MGL14051972OL</b>
<b>Sequence</b>	<b>04</b>
<b>Direction</b>	<b>302</b>

Streamer Parameters				
	1	2	3	4
Length (m)	3000	3000		
Auxiliaries	n/a	n/a		
Shotpoint Interval: (m)	12.5	12.5		
Offset CS - CNG (m)	210	210		
Group Interval: (m)	12.5	12.5		
Number of channels	236	236		
Streamer Depth (m)	5.5	8.0		
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz / 12 DB
Hi-Cut	412Hz / 276 DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	890	4562
Date MM/DD/YY	07/04/14	07/04/14
Time UTC	09:27	15:05
Volume (cu in.)	700in3	700in3
Wind (kts)	E7kts.	ENE 10kts
Sea State (m)	1-2m	1-2m
Water Depth (m)	51.7m	27m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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]



<b>Observers Log</b>
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Vessel	Marcus G. Langseth
Client	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	Dave Martinson		
Acquisition Leader	Raul Perez 12:00-24:00	Robert Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Michael Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>021</b>	<b>022</b>
<b>SP #</b>	<b>827</b>	<b>5141</b>

Line	MGL14051876OL
Sequence	05
Direction	267

Streamer Parameters				
	1	2	3	4
Length (m)	3000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	12.5			
Offset CS - CNG (m)	210			
Group Interval: (m)	12.5			
Number of channels	236			
Streamer Depth (m)	5.5			
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz / 276DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	1001	5141
Date MM/DD/YY	07/07/14	07/08/14
Time UTC	23:33	06:13
Volume (cu in.)	700in3	700in3
Wind (kts)	SW 25	NW 22.8
Sea State (m)	1-2m	1-2m
Water Depth (m)	52.5m	26.0m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson		
Acquisition Leader	Raul Perez 12:00-24:00	Robert Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Michael Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>023</b>	<b>026</b>
<b>SP #</b>	<b>5064</b>	<b>861</b>

<b>Line</b>	<b>MGL14052860OM</b>
<b>Sequence</b>	<b>06</b>
<b>Direction</b>	<b>123</b>

Streamer Parameters				
	1	2	3	4
Length (m)	3000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	12.5			
Offset CS - CNG (m)	210			
Group Interval: (m)	12.5			
Number of channels	236			
Streamer Depth (m)	5.5			
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz / 276 DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	1001	861
Date MM/DD/YY	07/08/14	07/08/14
Time UTC	07:23	13:33
Volume (cu in.)	700in3	700in3in3
Wind (kts)	SSW 21kts	SSW 18.4kts
Sea State (m)	1-2m	1-2m
Water Depth (m)	28.25m	57.93m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFFSP - Last Full Fold 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]

<b>Observers Log</b>
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Vessel	Marcus G. Langseth
Client	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	David Martinson		
Acquisition Leader	Raoul Perez 12:00-24:00	Robert Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Michael Martello 00:00-12:00	

	SOL	EOL
<b>Tape #</b>	<b>027</b>	<b>29</b>
<b>SP #</b>	<b>868</b>	<b>5141</b>

<b>Line</b>	<b>MGL14051948OM</b>
<b>Sequence</b>	<b>07</b>
<b>Direction</b>	<b>303</b>

Streamer Parameters				
	1	2	3	4
Length (m)	3000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	12.5			
Offset CS - CNG (m)	210			
Group Interval: (m)	12.5			
Number of channels	236			
Streamer Depth (m)	5.5			
SOL Cable Noise, $\mu$ B				
EOL Cable Noise, $\mu$ B				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz / 276 DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	868	5141
Date MM/DD/YY	07/08/14	07/08/14
Time UTC	14:47	21:07
Volume (cu in.)	700in3	700in3in3
Wind (kts)	SSW 19 kts	SW 17kts.
Sea State (m)	1-2m	1-2m
Water Depth (m)	51.6m	22.6m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments	
SOL NOISY CHANNELS	
EOL NOISY CHANNELS	

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP- First Good SP	LCSP - Last Chargeable SP
FCSP - First Chargeable SP	LFSP - Last Full Fold 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	Greg Mountain
Area	NJ Margin 3D
Job Number	MGL1405

Chief Science Officer	Robert Steinhaus		
Science Officer	Dave Martinson		
Acquisition Leader	Raul Perez 12:00-24:00	Robert Koprowski 00:00-12:00	
Navigation Leader	Alan Thompson 12:00-24:00	Michael Martello 00:00-12:00	

	SOL	EOL
Tape #	30	30
SP #	5141	4739

Line	MGL14052836OL
Sequence	08
Direction	267

Streamer Parameters				
	1	2	3	4
Length (m)	3000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	12.5			
Offset CS - CNG (m)	210			
Group Interval: (m)	12.5			
Number of channels	236			
Streamer Depth (m)	5.5			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	700 in3
Work Pressure	1950psi +/- 100psi
Dual Source	yes
Depth	4.5
Sub-array Separation	N/A
COS to COS	Single Source

Recording Parameters	
Record Length	4096
Total recording delay	0
Sample Rate	1.0ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	412Hz / 276DB
Tape Format	SEGD rev. 2

Description	SOL/FGSP	EOL/LGSP
SP	5141	4739
Date MM/DD/YY	07/08/14	07/08/14
Time UTC	22:03	22:39
Volume (cu in.)	700in3	700in3
Wind (kts)	SW22	SW22
Sea State (m)	1-2m	1-2m
Water Depth (m)	28.5m	31.6m

Cable	Dead Channels
1	
1	
2	
3	
3	
4	

Auxiliaries	
Aux. 1-8	Empty
Aux. 13-16	Empty
Aux 9 Gun hydrophone	Empty
Aux 10 Gun hydrophone	Empty
Aux 11 Gun hydrophone	Empty
Aux 12 Gun hydrophone	Empty

General / Line Comments
Line ended early, shut down until further notice
SOL NOISY CHANNELS
EOL NOISY CHANNELS

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable SP	LFFSP - Last Full Fold 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]