

Observers Log

Vessel	Marcus G. Langseth
Client	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	988
SP #	988	1181	LGSP	1181

Line	MGL1305OBS01
Sequence	001
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	988	1181
Date MM/DD/YY	04/19/13	04/19/2013
Time UTC	10:57	21:34
Volume (cu in.)	6520in3	6570in3
Wind (kts)	SSW 12	SSE 10
Sea State (m)	1m	1m
Water Depth (m)	2457m	1607m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 988
EOL SP 1181
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

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

Time UTC	SP	Description
On Ramp Up		Disabled Guns S3G03 (40 cu in), S4G03 (40 cu in) and S2G04 (180 cu in) due to no fire. Enabled Gun S2G05 (180 cu in)
1138	1000	Gun S3G01 Timing error at 7.1 ms
1144	1002	Gun S3G01 Timing error at -4.0 ms
1148	1003	Gun S3G01 Timing error at 2.6 ms
1154	1005	Gun S3G01 Timing error at -2.2 ms
1204	1008	Gun S3G01 Timing error at 2.9 ms
1218	1012	Gun S3G01 Timing error at -2.2 ms
1224	1014	Gun S3G01 Timing error at 2.5 ms
1237	1018	Gun S3G01 Timing error at 12.4 ms
1241	1019	Gun S3G01 Timing error at -11.0 ms
1244	1020	Gun S3G01 Timing error at -2.9 ms
1251	1022	Gun S3G01 Timing error at 3.0 ms
1254	1023	Gun S3G01 Timing error at 3.1 ms
1304	1026	Gun S3G01 No fire
1308	1027	Gun S3G01 Timing error -3.6 ms
1335	1035	Gun S3G01 Timing error 2.2 ms
1409	1045	Gun S3G10 comm Error
1413	1046	Gun S3G07 Delta Timing at 3.5 ms
1416	1047	Gun S3G07 Delta Timing at 3.6 ms
1419	1048	Gun S3G01 No Fire
1419	1048	Gun S3G07 Delta Timing at 3.5 ms
1423	1049	Gun S3G07 Delta Timing at 3.4 ms
1426	1050	Gun S3G07 Delta Timing at 3.5 ms
1429	1051	Gun S3G07 Delta Timing at 3.4 ms
1432	1052	Gun S3G01 No Fire
1432	1052	Gun S3G07 Delta Timing at -7.1 ms
1436	1053	Gun S3G07 Delta Timing at -7.0 ms
1439	1054	Gun S3G07 Delta Timing at -7.1 ms
1443	1055	Gun S3G01 Delta Timing at 5.2 ms
1443	1055	Gun S3G07 Delta Timing at -7.1 ms
1446	1056	Gun S3G01 Delta Timing at -4.2 ms
1446	1056	Gun S3G07 Delta Timing at -7.2 ms
1449	1057	Gun S3G07 Delta Timing at -7.1 ms
1452	1058	Gun S3G07 Delta Timing at -7.2 ms
1456	1059	Gun S3G07 Delta Timing at -7.0 ms
1459	1060	Gun S3G07 Delta Timing at -7.0 ms
1502	1061	Gun S3G07 Delta Timing at -7.1 ms
1506	1062	Gun S3G07 Delta Timing at -7.1 ms
1509	1063	Gun S3G01 No fire
1509	1063	Gun S3G07 Delta Timing at 12.4 ms
1513	1064	Gun S3G07 Delta Timing at 12.4 ms
1516	1065	Gun S3G07 Delta Timing at -5.9 ms
1556	1077	Gun S3G07 Delta Timing at -2.9 ms
1559	1078	Gun S3G07 Delta Timing at -3.1 ms
1602	1079	Gun S3G07 Delta Timing at -3.0 ms
1606	1080	Gun S3G07 Delta Timing at -3.0 ms
1609	1081	Gun S3G07 Delta Timing at -3.0 ms
1612	1082	Gun S3G01 Delta Timing at 4.0 ms
1612	1082	Gun S3G07 Delta Timing at -3.0 ms

1616	1083	Gun S3G01 No fire
1616	1083	Gun S3G07 Delta Timing at 10.1 ms
1619	1084	Gun S3G01 Delta Timing at -4.1 ms
1619	1084	Gun S3G07 Delta Timing at 10.2 ms
1623	1085	Gun S3G07 Delta Timing at -4.7 ms
1626	1086	Gun S3G07 Delta Timing at -5.0 ms
1629	1087	Gun S3G07 Delta Timing at 2.3 ms
1633	1088	Gun S3G07 Delta Timing at 2.3 ms
1702	1097	Gun S3G01 DT 4.7ms
1705	1098	S3G01 DT -2.7 ms
1722	1103	Gun S3G01 No fire
1728	1105	Gun S3G01 Delta Timing at 4.4 ms
1731	1106	Gun S3G01 Delta Timing at -4.5 ms
1741	1109	Gun S3G01 Delta Timing at 2.2 ms
1744	1110	Gun S3G01 No fire
1747	1111	Gun S3G01 Delta Timing at 4.7 ms
1751	1112	Gun S3G01 Delta Timing at -5.4 ms
1757	1114	Gun S3G06 Comn Error
1800	1115	Gun S3G06 Comn Error
1804	1116	Gun S3G06 Comn Error
1807	1117	Gun S2G06 No fire
1809	1118	Change Airgun array volume to 6570 / disabled S2G06 and S1G03, enabled S1G04
1810	1118	Gun S1G05 Delta Timing at 7.6 ms
1813	1119	Gun S1G05 Delta Timing at -4.3 ms
1820	1121	Gun S2G06 Comm Error
1840	1127	Gun S2G06 Comm Error
1843	1128	Gun S3G01 Delta Timing at 5.5 ms
1911	1137	Gun S3G01 No fire
1934	1144	Gun S3G01 Delta Timing at 2.6 ms
1937	1145	Gun S3G01 Delta Timing at -2.2 ms
1940	1146	Gun S3G01 Delta Timing at -2.5 ms
1956	1151	Gun S3G01 No fire
2000	1152	Gun S3G01 Delta Timing at 11.6 ms
2003	1153	Gun S3G01 Delta Timing at -8.9 ms
2006	1154	Gun S3G01 Delta Timing at -3.9 ms
2012	1156	Gun S3G01 Delta Timing at -2.1 ms
2016	1157	Gun S3G01 Delta Timing at -8.8 ms
2019	1158	Gun S3G01 No Fire
2022	1159	Gun S3G01 Delta Timing at -11.4 ms
2025	1160	Gun S3G01 No Fire
2028	1161	Gun S3G01 No Fire
2031	1162	Gun S3G01 Delta Timing at -4.3 ms
2038	1164	Gun S3G01 No Fire
2041	1165	Gun S3G01 No Fire
2054	1169	S3G01 DT -2.1ms
2104	1172	S3G01 Delta Timing at 2.4ms
2110	1174	S3G01 Delta Timing at 4.1ms
2114	1175	S3G01 Delta Timing at -3.6ms
2123	1178	S3G01 Delta Timing at 3.4ms
2127	1179	S3G01 Delta Timing at -4.1ms
2133	1181	S3G01 Delta Timing at 4.3ms
2133	1181	EOL

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Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	1505
SP #	1505	1508	LGSP	1508

Line	MGL1305OBS01T
Sequence	002
Direction	316

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/19/13	04/19/13
Time UTC	2149	2159
Volume (cu in.)	6570in3	6570in3
Wind (kts)	SSE10	SSE10
Sea State (m)	1m	1m
Water Depth (m)	1551m	1460m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 1505
EOL SP 1508
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

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

Time UTC	SP	Description
2149	1505	Start of line Vol 6570 in3
2152	1506	S3G01 Delta Timing at 3.6ms
2156	1507	S3G01 Delta Timing at -2.4ms
2159	1508	S3G01 Delta Timing at -2.1ms EOL

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Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	2003
SP #	2003	2181	LGSP	2181

Line	MGL1305OBS02
Sequence	003
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	2003	2181
Date MM/DD/YY	04/19/13	04/20/13
Time UTC	22:07	07:51
Volume (cu in.)	6570in3	6570in3
Wind (kts)	SSE 10	ESE 19
Sea State (m)	1m	1m
Water Depth (m)	1450m	2305m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 2003
EOL SP 2181
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

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

Time UTC	SP	Description
2207	2003	SOL 6570
2211	2004	S3G10 CE
2230	2010	S3G10 CE
2237	2012	S3G10 CE
2240	2013	S3G10 CE
2243	2014	S3G10 CE
2246	2015	S3G01 Delta Timing at 12.1ms
2250	2016	S3G01 Delta Timing at -9.9ms
2253	2017	S3G01 Delta Timing at -4.3ms
2256	2018	S3G10 CE
2303	2020	S3G10 CE
2310	2022	S3G10 CE
2316	2024	S3G10 CE
2323	2026	S3G10 CE
2332	2029	S3G10 CE
2339	2031	S3G10 CE
2346	2033	S3G10 CE
2352	2035	S3G10 CE
2355	2036	S3G10 CE
0002	2038	S3G10 CE
0011	2041	S3G10 CE
0018	2043	S3G10 CE
0024	2045	S3G10 CE
0031	2047	S3G10 CE
0041	2050	S3G10 CE
0044	2051	S3G10 CE
0047	2052	S3G01 Delta Timing at 9.6ms
0051	2053	S3G01 Delta Timing at -7.9ms
0051	2053	S3G10 CE
0120	2062	S3G01 Delta Timing at 4.4ms
0203	2075	S3G07 Delta Timing at 2.2ms
0207	2076	S3G01 Delta Timing at 2.1ms
0210	2077	S3G01 Delta Timing at -2.3ms
0220	2080	S3G07 Reducing sensor gain from 4 to 3
0236	2080	S3G07 Reducing sensor gain from 3 to 2
	2087	Sensor gains reduced: S1G04 from 6 to 4, S1G05 from 8 to 4
	2088	Sensor gains reduced: S1G04 from 4 to 3, S1G05 from 4 to 3
	2089	Sensor gains reduced: S1G04 from 3 to 2, S1G05 from 3 to 2
	2090	Sensor gains reduced: S1G09 from 2 to 1.5, S1G10 from 3 to 2
0256	2091	S3G01 Delta Timing at 2.1ms
	2094	Sensor gains reduced: S4G01 from 2 to 1, S4G02 from 2 to 1
	2095	Sensor gains reduced: S1G09 from 1.5 to 1, S1G10 from 2 to 1
	2096	Sensor gains reduced: S3G02 from 3 to 2
0336	2103	S3G01 Delta Timing at 2.5ms
	2104	Sensor gains increased: S3G01 from 1.2 to 1.5
0342	2105	S3G01 Delta Timing at 2.1ms
0346	2106	S3G01 Delta Timing at 5.1ms
		S3G01 Delta Timing at -5.6ms
0356	2109	S3G01 Delta Timing at 4.8ms

0359	2110	S3G01 Delta Timing at 4.6ms
0402	2111	S3G01 Delta Timing at -7.2ms
	2112	Sensor gains increased: S3G01 from 1.5 to 1.2
0416	2115	S3G01 Delta Timing at 8.9ms
0419	2116	S3G01 Delta Timing at -6.7ms
0432	2120	S3G01 Delta Timing at 2.3ms
0449	2125	S3G10 CE
0452	2126	S3G01 Delta Timing at 4.4ms
0455	2127	S3G01 Delta Timing at -3.0ms
0502	2129	S3G01 Delta Timing at 2.8ms
0528	2137	S3G01 Delta Timing at 2.2ms
0617	2152	S3G01 Delta Timing at -2.2ms
0630	2156	S3G01 Delta Timing at -8.2ms
0633	2157	S3G01 Delta Timing at 11.4ms
0636	2158	S3G01 Delta Timing at -4.3ms
0649	2162	S3G01 Delta Timing at 4.0ms
0652	2163	S3G01 Delta Timing at -2.9ms
0737	2177	S3G01 Delta Timing at 3.6ms
0741	2178	S3G01 Delta Timing at -3.1ms
0751	2181	EOL

Observers Log

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Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	2502
SP #	2502	2508	LGSP	2508

Line	MGL1305OBS02T
Sequence	004
Direction	318

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	2502	2508
Date MM/DD/YY	04/20/13	04/20/13
Time UTC	07:57	08:17
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ESE 19	ESE 19
Sea State (m)	1m	1m
Water Depth (m)	2364m	2492m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 2502
EOL SP 2508
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	3003
SP #	3003	3181	LGSP	3181

Line	MGL1305OBS03
Sequence	005
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	3003	3181
Date MM/DD/YY	04/20/13	4/20/13
Time UTC	08:25	1825
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ESE 10	NE16
Sea State (m)	1.5m	2m
Water Depth (m)	2480m	1495m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 3003
EOL SP 3181
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

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

Time UTC	SP	Description
0841	3008	S3G01 Delta Timing Error at -2.3ms
0844	3009	S3G01 Delta Timing Error at 4.0ms, S3G10 Comm Error
0847	3010	S3G01 Delta Timing Error at -3.4ms, S3G10 Comm Error
0854	3012	S3G01 Delta Timing Error at 4.0ms
0857	3013	S3G01 Delta Timing Error at 3.9ms
0900	3014	S3G01 Delta Timing Error at -5.8ms
0914	3018	S3G10 Comm Error
0920	3020	S3G10 Comm Error
0930	3023	S3G01 Delta Timing Error at 2.6ms
0933	3024	S3G01 Delta Timing Error at 2.5ms
0937	3025	S3G01 Delta Timing Error at -2.5ms
0938	3025	S3G010 Comm Error
0950	3029	S3G010 Comm Error
0953	3030	S3G01 Delta Timing Error at 2.4ms
0957	3031	S3G010 Comm Error
1013	3036	S3G01 Delta Timing Error at 4.4ms
1016	3037	S3G01 Delta Timing Error at -4.1ms
1016	3037	S3G010 Comm Error
1026	3040	S3G01 Delta Timing Error at 3.4ms
1029	3041	S3G01 Delta Timing Error at -2.8ms
1032	3042	S3G01 Delta Timing Error at 5.3ms
1032	3042	S3G010 Comm Error
1036	3043	S3G01 Delta Timing Error at -4.7ms
1045	3046	Last full volume shot point
1050	3047	Array volume reduced to 40 cu in due to a whale siting, slowed down to 3 kts.
1114	3053	Last 40 cu in mitigation shot
1119	3054	First Good Shot Point at 6570 cu in
1123	3055	S2G04 No Fire. Disabled S2G04, Enabled S1G04. No volume change
1126	3056	S2G06 Comm Error
1130	3057	S3G06 Comm Error
1136	3059	S3G10 Comm Error
1143	3061	S3G10 Comm Error
1148	3063	S3G10 Comm Error
1156	3065	S3G01 Delta Timing Error at 4.4ms
1156	3065	S3G10 Comm Error
1206	3068	S3G01 Delta Timing Error at 6.8ms
1209	3069	S3G01 Delta Timing Error at -5.4ms
1222	3073	S3G10 Comm Error
1236	3077	S3G01 Delta Timing Error at 6.1ms LGSP full volume
1239	3078	Mitigation for turtle 40in3
1251	3081	Resumed full volume
1304	3085	S3G10 Comm Error
1320	3090	S3G01 Delta Timing Error at 7.7 ms
1324	3091	S3G01 Delta Timing Error at -5.7 ms
1327	3092	S3G01 Delta Timing Error at -2.1 ms
1337	3095	S3G01 Delta Timing Error at 2.1 ms
1344	3097	S3G01 Delta Timing Error at 7.4 ms
1347	3098	S3G01 Delta Timing Error at -5.0 ms
1350	3099	S3G01 Delta Timing Error at -4.3 ms

1404	3103	S3G01 Delta Timing Error at 3.0 ms
1407	3104	S3G01 Delta Timing at -2.3 ms
1407	3104	S3G10 Comm Error
1410	3105	S3G01 Delta Timing at 2.4 ms
1410	3105	S3G10 Comm Error
1414	3106	S3G01 Delta Timing at -2.4 ms
1420	3108	S3G01 Delta Timing at 4.9 ms
1420	3108	S3G10 Comm Error
1424	3109	S3G01 Delta Timing at -4.0 ms
1424	3109	S3G10 Comm Error
1437	3113	S3G10 Comm Error
1457	3119	S3G10 Comm Error
1500	3120	S3G01 Delta Timing at 6.4 ms
1500	3120	S3G10 Comm Error
1503	3121	S3G01 Delta Timing at -6.4 ms
1510	3123	Last full volume shot point
1513	3124	Mitigation for turtle 40in3
1523	3126	full volume 6570 in3
16:04	3138	Gun S3G01 Delta Timing at 2.5 ms
16:11	3140	Gun S3G01 Delta Timing at 7.1 ms
16:14	3141	Gun S3G01 Delta Timing at -6.1 ms
16:18	3142	Gun S3G01 Delta Timing at 6.0 ms
16:21	3143	Gun S3G01 Delta Timing at -5.0 ms
16:34	3147	Gun S3G10 Comm Error
16:38	3148	Gun S3G10 Comm Error
16:44	3150	Gun S3G01 Delta Timing at 4.8 ms
1648	3151	Gun S3G01 Delta Timing at -5.1 ms
1654	3453	Gun S3G10 Comm Error
1717	3160	Gun S3G10 Delta Timing at -4.2 ms
1717	3160	Gun S3G10 Comm Error
1740	3167	Gun S3G10 Comm Error
1743	3168	Gun S3G10 Comm Error
1825	3181	EOL

Observers Log

Vessel	Marcus G. Langseth
Client	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	3503
SP #	3503	3508	LGSP	3508

Line	MGL1305OBS03T
Sequence	006
Direction	316

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	3503	3508
Date MM/DD/YY	4/20/13	4/20/13
Time UTC	1834	1849
Volume (cu in.)	6570in3	6570in3
Wind (kts)	NE 16	NE16
Sea State (m)	2m	2m
Water Depth (m)	1343m	1570m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 3503
EOL SP 3508
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	4003
SP #	4003	4181	LGSP	4181

Line	MGL1305OBS04
Sequence	007
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	4003	4181
Date MM/DD/YY	4/20/13	04/21/13
Time UTC	1857	0442
Volume (cu in.)	6570in3	6570in3
Wind (kts)	NE 16	ENE 22
Sea State (m)	2m	3mm
Water Depth (m)	1616m	2269m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 4003
EOL SP 4181
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	4502
SP #	4502	4507	LGSP	4507

Line	MGL1305OBS04T
Sequence	008
Direction	319

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	4502	4507
Date MM/DD/YY	04/21/13	04/21/13
Time UTC	0447	0505
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 22	ENE 22
Sea State (m)	3mm	3mm
Water Depth (m)	2339m	1808m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP
EOL SP
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	5002
SP #	5002	5180	LGSP	5180

Line	MGL1305OBS05
Sequence	009
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
	5002	5180
Date MM/DD/YY	04/21/13	4/21/13
Time UTC	0512	1507
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 22	ENE 20
Sea State (m)	3m	3m
Water Depth (m)	1778m	1747m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 5002
EOL SP 5180
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	5504
SP #	5504	5510	LGSP	5510

Line	MGL1305OBS05T
Sequence	010
Direction	52

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	1518	1537
Time UTC	1518	1537
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 20	ENE 21
Sea State (m)	3m	3m
Water Depth (m)	2426m	2432m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 5504
EOL SP 5510
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	6002
SP #	6002	6178	LGSP	6178

Line	MGL1305OBS06
Sequence	011
Direction	218

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/21/13	04/22/13
Time UTC	1539	0117
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 21	E 19
Sea State (m)	3m	4m
Water Depth (m)	2529m	1979m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 6002
EOL SP 6178
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	6503
SP #	6503	6507	LGSP	6507

Line	MGL1305OBS06T
Sequence	012
Direction	318

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/22/13	04/22/13
Time UTC	0127	0143
Volume (cu in.)	6570in3	6570in3
Wind (kts)	E 19	ENE 26
Sea State (m)	4m	4m
Water Depth (m)	1836m	1813m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 6503
EOL SP 6507
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	7002
SP #	7002	7174	LGSP	7174

Line	MGL1305OBS07
Sequence	013
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/22/13	04/22/13
Time UTC	0150	1117
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 26	ENE 18
Sea State (m)	4m	3.5m
Water Depth (m)	2012m	2727m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 7002
EOL SP 7174
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	7503
SP #	7503	7509	LGSP	7509

Line	MGL1305OBS07T
Sequence	014
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/22/13	04/22/13
Time UTC	1125	1145
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 22	ENE 22
Sea State (m)	3.0m	3m
Water Depth (m)	2778m	2559m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 7503
EOL SP 7509
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	8002
SP #	8002	8173	LGSP	8173

Line	MGL1305OBS08
Sequence	015
Direction	301

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	22/04/13	22/4/13
Time UTC	1150	2108
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 25	ENE 3
Sea State (m)	3m	1m
Water Depth (m)	2437m	1928m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 8002
EOL SP 8173
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	8503
SP #	8503	8508	LGSP	8508

Line	MGL1305OBS08T
Sequence	016
Direction	270

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/22/13	4/22/13
Time UTC	2116	2133
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 4	ENE 4
Sea State (m)	2.5m	2.5m
Water Depth (m)	1909m	2068m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 8503
EOL SP 8508
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	9003
SP #	9003	9179	LGSP	9179

Line	MGL1305OBS09
Sequence	017
Direction	48

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/22/13	04/23/13
Time UTC	2141	0712
Volume (cu in.)	6570in3	6570in3
Wind (kts)	ENE 3	NE15
Sea State (m)	2.5m	2m
Water Depth (m)	2115m	2531.8m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 9003
EOL SP 9179
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	9994
SP #	9994	10171	LGSP	10171

Line	MGL1305OBS010
Sequence	018
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/23/2013	4/23/13
Time UTC	0749	1729
Volume (cu in.)	6570in3	6570in3
Wind (kts)	NE13	N 11
Sea State (m)	2m	2m
Water Depth (m)	2764.3m	2019m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 9994
EOL SP 10171
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	10503
SP #	10503	10508	LGSP	10508

Line	MGL1305OBS010T
Sequence	019
Direction	125

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/23/13	4/23/13
Time UTC	1738	1754
Volume (cu in.)	6570in3	6570in3
Wind (kts)	N 11	N12
Sea State (m)	2m	2m
Water Depth (m)	1908m	1744m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 10503
EOL SP 10508
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	11003
SP #	11003	11176	LGSP	11176

Line	MGL1305OBS011
Sequence	020
Direction	45

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/23/13	04/24/13
Time UTC	1802	0327
Volume (cu in.)	6570in3	6570in3
Wind (kts)	N 12	NNW 25
Sea State (m)	2m	2.5m
Water Depth (m)	1584m	2784m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 11003
EOL SP 11176
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	11496
SP #	11496	11677	LGSP	11677

Line	MGL1305OBS012
Sequence	021
Direction	225

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/27/13	4/27/13
Time UTC	1103	2107
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 23	SE16
Sea State (m)	4m	2.5m
Water Depth (m)	2058m	1733m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 11496
EOL SP 11677
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	12003
SP #	12003	12008	LGSP	12008

Line	MGL1305OBS012T
Sequence	022
Direction	137

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/27/13	4/27/13
Time UTC	2115	2133
Volume (cu in.)	6600in3	6600in3in3
Wind (kts)	SE16	SE16
Sea State (m)	2.5m	2.5mm
Water Depth (m)	1812m	1817m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP
EOL SP
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	12053
SP #	12503	12680	LGSP	

Line	MGL1305OBS013
Sequence	023
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/27/13	04/28/13
Time UTC	2141	0728
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 16	SE 21
Sea State (m)	2.5m	3m
Water Depth (m)	1817m	2114m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 12503
EOL SP 12680
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

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

Time UTC	SP	Description
2141	12503	SOL MGL1305OBS013 Guns in spare: S1G05, S2G05, S3G05, S4G05 6600 cu in
2204	12510	S2G06 CE
2207	12511	S3G07 DT at -3.8ms
2211	12512	S3G07 DT at -3.7ms
2227	12517	S2G06 CE
2231	12518	S2G06 No fire VOL 6510 in3
2231	12518	S3G07 DT at -4.6ms
2241	12521	DT at -11.4ms
2244	12522	S3G01 DT at 3.3ms
2301	12527	S2G06 CE
2304	12528	S3G07 DT at -4.3ms
2334	12537	S3G01 DT at 3.3ms
2338	12538	S3G01 DT at -2.1ms
2352	12542	S3G07 DT at -5.9ms
2356	12543	S3G07 DT at -5.9ms
2359	12544	S3G07 DT at -6.0ms
0002	12545	S3G07 DT at -5.8ms
0005	12546	S3G07 DT at -6.0ms
0012	12548	S3G01 DT at 3.5ms
0016	12549	S3G01 DT at -2.3ms
0019	12550	S3G01 DT at 2.9ms
0045	12558	S3G01 DT at 7.5ms
0048	12559	S3G01 DT at -5.5ms
0058	12562	S3G01 DT at 4.0ms
0101	12563	S3G01 DT at -5.8ms
0108	12565	S3G01 DT at -3.1ms
0111	12566	S3G01 DT at -2.8ms
0115	12567	S3G01 DT at 2.7ms
0132	12572	S3G01 DT at 4.1ms
0135	12573	S3G01 DT at 3.3ms
0151	12578	S3G01 DT at -11.0ms
0205	12582	S3G01 DT at 5.1ms
0208	12583	S3G01 DT at 3.4ms
0212	12584	S3G01 DT at 5.4ms
0215	12585	S3G01 DT at 7.7ms
0218	12586	S3G01 DT at -5.9ms
0228	12589	S3G01 DT at 3.3ms
0311	12602	S3G01 DT at 2.8ms
0334	12609	S3G01 DT at 6.3ms
0344	12612	S3G01 DT at 5.7ms
0354	12615	S3G01 DT at 7.5ms
0404	12618	S3G01 DT at -2.5ms
0410	12620	S3G01 DT at 7.4ms
0426	12625	S3G01 DT at 8.5ms
0442	12630	S3G01 DT at 4.9ms
0446	12631	S3G01 DT at 10.7ms
0449	12632	S3G01 DT at 10.3ms
0458	12635	S3G01 DT at 3.4ms
0505	12637	S3G01 DT at 7.2ms

0508	12638	S3G01 DT at 6.4ms
0512	12639	S3G01 DT at -4.4ms
0518	12641	S3G01 DT at 9.0ms
0521	12642	S3G01 DT at 8.2ms
0528	12644	S3G01 DT at 4.6ms
0531	12645	S3G01 DT at 3.0ms
0535	12646	S3G01 DT at 2.7ms
0541	12648	S3G01 DT at 4.4ms
0545	12650	S3G01 DT at -3.4ms
0554	12652	S3G01 DT at 9.4ms
0607	12656	S3G01 DT at 3.3ms
0611	12657	S3G01 DT at 4.2ms
0614	12658	S3G01 DT at 6.4ms
0625	12661	S3G01 DT at 2.4ms
0631	12663	S3G01 DT at 2.2ms
0635	12664	S3G01 DT at 2.5ms
0642	12666	S3G01 DT at 3.3ms
0645	12667	S3G01 DT at 5.2ms
0648	12668	S3G01 DT at 8.1ms
0651	12669	S3G01 DT at 2.2ms
0655	12670	S3G01 DT at 3.2ms
0658	12671	S3G01 DT at 4.3ms
0701	12672	S3G01 DT at 2.3ms
0705	12673	S3G01 DT at 4.4ms
0724	12679	S3G01 DT at 12.0ms
0729	12680	S3G01 DT at 2.8ms

Observers Log

Vessel	Marcus G. Langseth
Client	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	13002
SP #	13002	13007	LGSP	13007

Line	MGL1305OBS013T
Sequence	024
Direction	129

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/28/13	04/28/13
Time UTC	0734	0750
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 21	SE 21
Sea State (m)	3m	3m
Water Depth (m)	1960m	1428m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 13002
EOL SP 13007
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	13503
SP #	13503	13681	LGSP	13681

Line	MGL1305OBS014
Sequence	025
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/28/13	4/28/13
Time UTC	0800	1747
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 19	SSE 15
Sea State (m)	3m	2-3m
Water Depth (m)	1449m	1982m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 13503
EOL SP 13681
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	14003
SP #	14003	14008	LGSP	14008

Line	MGL1305OBS014T
Sequence	026
Direction	140

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/28/13	4/2/13
Time UTC	1755	1812
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 15	SSE 16
Sea State (m)	2-3m	2-3m
Water Depth (m)	2335m	2246m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

6nb

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 SP
EOL SP
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	14503
SP #	14503	14681	LGSP	14681

Line	MGL1305OBS015
Sequence	027
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/28/13	04/29/13
Time UTC	1820	0413
Volume (cu in.)	40in3	6600in3
Wind (kts)	SSE 15	SE 14
Sea State (m)	2-3m	2m
Water Depth (m)	2370m	1750m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 14503
EOL SP 14681
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

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

Time UTC	SP	Description
1820	14503	SOL MGL1305OBS015 Whale sighted at SOL 40 in3 first shot
1848	14510	First full volume shot 6600 in3
1851	14511	S3G01 DT at 10.8 ms
1854	14512	S3G01 DT at -6.6 ms
1858	14513	S3G01 DT at -3.6 ms
1930	14523	S3G01 DT at -2.1 ms
1953	14530	S3G01 DT at 2.8 ms
1959	14532	S3G01 DT -2.3 ms
2134	14561	S3G06 CE
2210	14572	S3G01 DT at -2.1ms
2310	14590	S3G01 DT at 2.4ms
2333	14597	S2G06 CE
2336	14598	S3G01 DT at 5.9ms
2342	14600	S3G01 DT at 5.7ms
2352	14603	S3G01 DT at -3.0ms
2355	14604	S2G06 CE
0005	14607	S3G01 DT at 2.3ms
0009	14608	S3G01 DT at 2.6ms
0012	14609	S3G01 DT at -2.2ms
0015	14610	S3G01 DT at 3.4ms
0022	14612	S3G01 DT at 2.5ms
0028	14614	S3G01 DT at 6.1ms
0038	14617	S3G01 DT at -10.7ms
0041	14618	S3G01 DT at 2.1ms
0047	14620	S3G01 DT at 2.4ms
0054	14622	S3G01 DT at -3.5ms
0057	14623	S3G01 DT at 3.5ms
0100	14624	S3G01 DT at -2.3ms
0104	14625	S3G01 DT at 4.3ms
0107	14626	S3G01 DT at 4.1ms
0114	14628	S3G01 DT at 4.3ms
0121	14630	S3G01 DT at 4.7ms
0141	14636	S3G01 DT at 2.4ms
0145	14637	S3G01 DT at -2.1ms
0148	14638	S3G01 DT at -2.3ms
0151	14639	S3G01 DT at 2.4ms
0155	14640	S3G01 DT at 2.1ms
0204	14643	S3G01 DT at 3.4ms
0215	14646	S3G01 DT at 2.2ms
0218	14647	S3G01 DT at -2.9ms
0221	14648	S3G01 DT at 4.2ms
0234	14652	S3G01 DT at 2.6ms
0241	14654	S3G01 DT at 2.1ms
0244	14655	S3G01 DT at 2.9ms
0251	14657	S3G01 DT at 4.6ms
0304	14661	S3G01 DT at 2.3ms
0307	14662	S3G01 DT at 5.6ms
0314	14664	S3G01 DT at 6.8ms
0317	14665	S3G01 DT at 3.7ms
0328	14668	S3G01 DT at 3.9ms
0342	14672	S3G01 DT at 4.2ms
0402	14678	S3G01 DT at 3.7ms

Observers Log

Vessel	Marcus G. Langseth
Client	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	15002
SP #	15002	15008	LGSP	15008

Line	MGL1305OBS015T
Sequence	028
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/29/13	04/29/13
Time UTC	0418	0438
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 14	SE 14
Sea State (m)	2m	2m
Water Depth (m)	1435m	1569m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 15002
EOL SP 15008
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	15502
SP #	15502	15681	LGSP	15681

Line	MGL1305OBS016
Sequence	029
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/29/13	4/29/13
Time UTC	0442	1428
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 15	SSE 9
Sea State (m)	2m	2m
Water Depth (m)	1545m	2245m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 15502
EOL SP 15681
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	16003
SP #	16003	16007	LGSP	16007

Line	MGL1305OBS016T
Sequence	030
Direction	120

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/29/13	4/29/13
Time UTC	1437	14
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE10	SSE9
Sea State (m)	2m	2m
Water Depth (m)	2343m	2339m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 16003
EOL SP 16007
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	16504
SP #	16504	16681	LGSP	16681

Line	MGL1305OBS017
Sequence	031
Direction	045

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/29/13	04/30/13
Time UTC	1504	0045
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 9	SSE 13
Sea State (m)	2m	1.5m
Water Depth (m)	1641m	1528m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 16504
EOL SP 16681
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	17001
SP #	17001	17070	LGSP	17070

Line	MGL1305OBS019
Sequence	032
Direction	318

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/30/13	04/30/13
Time UTC	0214	0602
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 14	SSE 12
Sea State (m)	1.5m	1.5m
Water Depth (m)	1898m	1357m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 17001
EOL SP 17070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	17502
SP #	17502	17517	LGSP	17517

Line	MGL1305OBS020
Sequence	033
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/30/13	04/30/13
Time UTC	0606	0656
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 14	SE 7
Sea State (m)	1.5m	1.5m
Water Depth (m)	1352m	1071m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 17502
EOL SP 17517
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	18002
SP #	18002	18068	LGSP	18068

Line	MGL1305OBS021
Sequence	034
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/30/13	04/30/13
Time UTC	0700	1036
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 7	SE 9
Sea State (m)	1.5m	1.5m
Water Depth (m)	1010m	1983m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 18002
EOL SP 18068
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	18502
SP #	18502	18515	LGSP	18515

Line	MGL1305OBS022
Sequence	035
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/30/13	04/30/13
Time UTC	1047	1130
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 9	SSE 11
Sea State (m)	1.5m	1m
Water Depth (m)	2113m	2141m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 18502
EOL SP 18515
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	19003
SP #	19003	19070	LGSP	19070

Line	MGL1305OBS023
Sequence	036
Direction	318

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	04/30/13	4/30/13
Time UTC	1136	1515
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 11	SSE 7
Sea State (m)	1m	1m
Water Depth (m)	2372m	697m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 19003
EOL SP 19070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	19503
SP #	19503	19502	LGSP	19512

Line	MGL1305OBS024
Sequence	037
Direction	225

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/30/13	4/30/13
Time UTC	1524	1554
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 7	SSE 8
Sea State (m)	1m	1m
Water Depth (m)	1204m	1710m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP
EOL SP
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	20003
SP #	20003	20070	LGSP	20070

Line	MGL1305OBS025
Sequence	038
Direction	145

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/30/13	4/30
Time UTC	1603	1943
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 7	SSE12
Sea State (m)	1m	2m
Water Depth (m)	1813m	2174m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 20003
EOL SP 20070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	
SP #	20503		LGSP	

Line	MGL1305OBS26
Sequence	039
Direction	230

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/30/13	4/30/13
Time UTC	1951	2043
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 11	S11
Sea State (m)	2m	1.5m
Water Depth (m)	2084m	1336m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 20503
EOL SP
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	21004
SP #	21004	21070	LGSP	21070

Line	MGL1305OBS029
Sequence	040
Direction	317

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	4/30/13	5/01/13
Time UTC	2054	0031
Volume (cu in.)	40in3	6600in3
Wind (kts)	S 11	S 6
Sea State (m)	1.5m	1m
Water Depth (m)	1602m	2100m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 21004
EOL SP 21070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	21053
SP #	21053	21591	LGSP	21519

Line	MGL1305OBS030
Sequence	041
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	5/01/13	05/01/13
Time UTC	0039	0132
Volume (cu in.)	6600in3	6600in3
Wind (kts)	S 8	S 8
Sea State (m)	1.5m	1.5m
Water Depth (m)	2142m	2435m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 21053
EOL SP 21519
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	22002
SP #	22002	22070	LGSP	22070

Line	MGL1305OBS033
Sequence	042
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	05/01/13	05/01/13
Time UTC	0136	0521
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 15	SSE 17
Sea State (m)	1m	1m
Water Depth (m)	2345m	1629m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 22002
EOL SP 22070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	22502
SP #	22502	22512	LGSP	22512

Line	MGL1305OBS034
Sequence	043
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	05/01/13	05/01/13
Time UTC	0527	0600
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 14	SSE 17
Sea State (m)	1m	1m
Water Depth (m)	1674m	1627m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 22502
EOL SP 22512
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	23002
SP #	23002	23070	LGSP	23070

Line	MGL1305OBS035
Sequence	044
Direction	318

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	05/01/13	05/01/13
Time UTC	0606	0946
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 17	SSE 15
Sea State (m)	1.5m	1.5m
Water Depth (m)	1814m	1729m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 23002
EOL SP 23070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	23502
SP #	23502	23514	LGSP	23514

Line	MGL1305OBS036
Sequence	045
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	05/01/13	05/01/13
Time UTC	0951	1030
Volume (cu in.)	40in3	6600in3
Wind (kts)	SSE 15	SSE 21
Sea State (m)	1.5m	2m
Water Depth (m)	1605m	1751m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 23502
EOL SP 23514
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	24002
SP #	24002	24070	LGSP	24070

Line	MGL1305OBS037
Sequence	046
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	05/01/13	05/01/13
Time UTC	1037	1423
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 21	SSE 22
Sea State (m)	2m	2.5m
Water Depth (m)	1562m	1791m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 24002
EOL SP 24070
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	24503
SP #	24503	24517	LGSP	24517

Line	MGL1305OBS038
Sequence	047
Direction	215

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	5/1/13	5/1/13
Time UTC	1432	1520
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 25	SSE 30
Sea State (m)	2.5m	3m
Water Depth (m)	1471m	1174m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 24503
EOL SP24517
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Canales and Dunn
Area	Midatlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL		
Tape #	N/A	N/A	FGSP	25003
SP #	25003	25072	LGSP	25072

Line	MGL1305OBS039
Sequence	048
Direction	046

Streamer Parameters				
	1	2	3	4
Length (m)	n/a			
Auxiliaries	n/a			
Shotpoint Interval: (m)	450			
Offset CS - CNG (m)	n/a			
Group Interval: (m)	n/a			
Number of channels	n/a			
Streamer Depth (m)	n/a			
SOL Cable Noise, µB	n/a			
EOL Cable Noise, µB	n/a			

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12m
Source Separation	6m
COS to COS	n/a
COS	232m

Recording Parameters	
Record Length	
Total recording delay	N/A
Sample Rate	N/A
Polarity	N/A
Low-Cut	N/A
Hi-Cut	N/A
Tape Format	N/A

Description	SOL/FQCSP	EOL/LQCSP
Date MM/DD/YY	5/1/13	5/1/13
Time UTC	1527	1914
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SSE 22	SSE 30
Sea State (m)	3m	4m
Water Depth (m)	1352m	1811m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 SP 25003
EOL SP 25072
SOL NOISY CHANNELS
None - no streamer recording
1
EOL NOISY CHANNELS
None - no streamer recording

Abbreviations	
SOL/EOL - Start/End of Line	LGSP - Last Good SP
FGSP - First Good SP	LCSP - Last Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	1	2
SP #	25556	28090

Line	MGL1305MCS101
Sequence	049
Direction	50.8

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	12
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	25556	28090
Date MM/DD/YY	05/04/13	5/4/13
Time UTC	12:12	2327
Volume (cu in.)	6600in3	6600in3
Wind (kts)	20	SSE 20
Sea State (m)	1m	3-4m
Water Depth (m)	1405m	1813m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	

Time UTC	FILE	SP	Tape	Description
1212	3	25556	1	SOL MGL1305MCS101 6600 in3 S1G05,S2G05,S3G05,S4G05 spared
1218	25	25578	1	S2G07 delta error 8.8 ms
1219	31	25584	1	S2G02 delta error 2.2 ms
1228	56	25619	1	S3G07 delta error -7.2
1236	87	25650	1	S3G07 delta error 11.9
1236	88	25651	1	s3g07 dt 3.2 ms
1236	89	25652	1	s3g07 -3.3 ms
1239	100	25663	1	s3g07 5.6 ms
1239	101	25664	1	s3g07 5.5 ms
1239	102	25665	1	s3g07 -5.1 ms
1242	111	25674	1	s3g07 4. ms
1246	140	25693	1	S3G07 10.4
1246	154	25705	1	s3g07 -3.3 ms
1249	155	25706	1	s3g07 6.0 ms
1253	170	25721	1	s3g06 2.8 ms
1253	171	25722	1	s3g07 8.1 ms
1255	178	25729	1	s3g06 4.0
1255	178	25729	1	s3g07 2.7
1255	179	25730	1	s3g07 2.7
1256	180	25731	1	s3g07 2.7
1257	186	25737	1	s3g07 2.2
1302	207	25758	1	s3g07 11.3
1302	208	25759	1	s3g07 3.0
1303	209	25760	1	s3g07 3.1
1306	224	25775	1	s3g07 7.9 ms
1311	244	25795	1	s3g06 2.1
1312	245	25796	1	s3g07 7.0 ms
1317	265	25816	1	s3g07 4.4 ms
1319	272	25823	1	s2g02 2.2 ms
1324	293	25844	1	s3g07 -2.9 ms
1326	308	25851	1	s3g07 2.7 ms
1329	311	25862	1	s3g07 -3.9 ms
1332	324	25875	1	s3g07 6.7 ms
1334	333	25884	1	s3g07 4.0 ms
1337	342	25893	1	s3g07 4.0 ms
1347	383	25934	1	s2g02 2.2 ms
1351	399	25950	1	s3g07 2.9 ms
1351	400	25951	1	s3g07 2.9 ms
1353	407	25958	1	s3g07 2.8 ms
1356	418	25969	1	s3g07 5.1 ms
1408	470	26021	1	s3g07 3.5 ms
1409	471	26022	1	s3g07 3.4 ms
1419	513	26064	1	s3g07 -2.2 ms
1422	523	26074	1	s3g07 -2.4 ms
1422	524	26075	1	s3g07 -2.3 ms
1424	534	26085	1	s3g07 4.6 ms
1430	557	26108	1	s3g07 -2.3 ms
1430	558	26109	1	s3g07 -2.3 ms
1433	568	26119	1	s3g01 10.8 ms

1433	569	26120	1	s3g01 11.6 ms
1442	603	26154	1	s3g07 2.1 ms
1444	613	26164	1	s3g07 4.7 ms
1446	620	26171	1	s3g07 -5.3 ms
1457	663	26214	1	s3g06 -2.5 ms
1457	664	26215	1	s3g07 -3.6 ms
1459	673	26224	1	s3g01 -3.6 ms
1500	674	26225	1	s3g01 2.9 ms
1500	675	26226	1	s3g07 -3.5 ms
1504	690	26241	1	s3g07 -2.3 ms
1515	736	26287	1	s3g07 5.0 ms
1519	753	26304	1	s3g07 8.8 ms
1519	754	26305	1	s3g07 8.8 ms
1524	773	26324	1	s3g02 2.2 ms
1525	779	26330	1	s3g07 -3.3 ms
1536	823	26374	1	s3g07 10.1 ms
1540	840	26391	1	Comm Error
1541	841	26392	1	s3g07 -2.8 ms
1611	959	26510	1	s3g07 2.8 ms
1611	960	26511	1	s3g07 2.8 ms
1657	1141	26692	1	s3g07 -2.5 ms
1658	1142	26693	1	s3g07 -2.5 ms
1721	1228	26779	1	last good shot
1721	1229	26780	1	no fire
1721	1230	26781	1	no fire
1721	1231	26782	1	mitigation gun start
1726	1245	26796	1	last shot
1726	1246	26797	1	no shot - shut down
1732	1268	26819	1	mitigation gun start
1737	1288	26839	1	End of tape 1
1737	1289	26840	2	Start of tape 2
1738	1295	26846	2	Back to full power s3g04 4.4 ms
1739	1296	26847	2	srg04 -3.3 ms
1829	1488	27039	2	s3g07 -4.4 ms
1829	1489	27040	2	s3g07 -4.5 ms
1830	1490	27041	2	s3g07 2.2 ms
1830	1491	27042	2	s3g07 2.2 ms
1835	1511	27062	2	s3g07 -2.3 ms
1840	1529	27080	2	s3g07 4.7 ms
1916	1766	27217	2	s2g02 2.3 ms
1917	1767	27218	2	s2g02 2.7 ms
1959	1819	27370	2	s2g02 2.7 ms
1959	1820	27371	2	s2g02 2.7 ms
2000	1822	27373	2	s2g02 2.4 ms
2013	1869	27420	2	s2g02 2.1 ms
2024	1907	27458	2	s3g07 -2.3 ms
2038	1954	27505	2	s2g02 2.6 ms
2053	2008	27559	2	s2g02 2.3 ms
2104	2048	27599	2	s2g02 2.9 ms
2111	2072	27623	2	s2g02 2.1ms
2115	2089	27640	2	s3g07 3.5ms

[illegible]

Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	3	4
SP #	30052	32263

Line	MGL1305MCS102
Sequence	050
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	30052	32263
Date MM/DD/YY	05/05/13	05/05/13
Time UTC	0014	0859
Volume (cu in.)	6600in3	6600in3
Wind (kts)	W 16	Calm
Sea State (m)	3.5m	1m
Water Depth (m)	2647m	1914m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	

Time UTC	FILE	SP	Tape	Description
				SOL MGL1305MCS102 6600 in3 S1G05,S2G05,S3G05,S4G05 spared STRMR at 16 m
0014	1	30052	003	Turn noise evident in record
				Lost 30054 and 30059
				dropped shot 30085 dropped 30091 30093 30095 30097 30100 speed over 5.5 SOG
0031		30124	3	dropped shot
0036	84	30148	3	
0041		30172	3	dropped shot due to speed
0042		30174	3	dropped shot due to speed
0043		30176	3	dropped shot due to speed
0048		30194	3	dropped shot due to speed
0050		30206	3	dropped shot due to speed
0052		30211	3	dropped shot due to speed
0052		30213	3	dropped shot due to speed
0054		30215	3	dropped shot due to speed
0055		30229	3	Birds changed to 12.8 meters from 16
0114	237	30308	3	s2g02 at 2.8ms
0114	238	30309	3	s2g02 at -2.1ms
0115		30314	3	dropped shot d/t speed
0122		30341	3	dropped shot d/t speed
0132	316	30389	3	s3g07 -2.3ms
0133	317	30390	3	s3g07 -2.4ms
0141		30425	3	dropped shot due to speed
0201	433	30509	3	s3g07 -2.6ms
0204	446	30522	3	s3g07 3.7ms
0204	447	30523	3	s3g07 3.6ms
0204	448	30524	3	s2g02 2.1ms
0204	448	30524	3	s3g07 3.7ms
0205	449	30525	3	s3g07 3.7ms
0205	450	30526	3	s3g07 3.7ms
0208	461	30537	3	s2g02 2.2ms
0230	556	30632	3	s3g07 -2.7ms
0234	571	30647	3	s2g02 2.2ms
0246	619	30695	3	s2g02 2.2ms
0302	687	30763	3	s2g02 2.1ms
0314	738	30814	3	s2g02 2.1ms
0336	834	30910	3	s2g02 2.3ms
0342	859	30935	3	s2g02 2.3ms
0348		30954	3	dropped shot due to speed
0348		30956	3	dropped shot due to speed
0359	928	31006	3	s2g02 2.1ms
0454	1158	31236	3	s2g02 2.4ms
0500			3	Set birds to 12 meters
0525	1289	31367	4	First SP of tape reel 4
0555		31489	4	dropped shot due to speed
0555		31490	4	dropped shot due to speed
0642	1612	31692	4	s2g02 2.1ms
0643	1579	31659	4	s2g02 2.4ms
0645	1625	31705	4	s2g02 2.1ms
0732	1825	31905	4	s3g07 5.4ms
0752	1905	31987	4	s3g07 -11.3ms
0737	1969	32051	4	s3g07 -3.3ms
0818	2013	32095	4	s3g07 -6.2ms
0830	2065	32147	4	s3g07 10.3ms
0830	2066	32148	4	s3g07 10.3ms
0830	2067	32149	4	s3g07 -3.0ms
0834	2082	32164	4	s3g07 6.7ms
0835	2088	32170	4	s3g07 -5.9ms
0859	2181	32263	4	EOL

Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	5	9
SP #	33671	36271

Line	MGL1305MCS103
Sequence	051
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	209			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	33671	36271
Date MM/DD/YY	05/05/13	5/5/13
Time UTC	1145	2323
Volume (cu in.)	6600in3	6600in3
Wind (kts)	SE 6	SSE 4
Sea State (m)	1m	1m
Water Depth (m)	1409m	1754m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	10	13
SP #	37030	39226

Line	MGL1305MCS104
Sequence	052
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	210			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	37030	39226
Date MM/DD/YY	05/06/13	05/06/13
Time UTC	0004	0939
Volume (cu in.)	6600in3	6600in3
Wind (kts)	S 4	NE 4
Sea State (m)	1m	1m
Water Depth (m)	1412m	1756m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	14	17
SP #	40059	42273

Line	MGL1305MCS105
Sequence	053
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	40059	42273
Date MM/DD/YY	05/06/13	5/6/13
Time UTC	1052	2143
Volume (cu in.)	6600in3	6560in3
Wind (kts)	N 8	N12
Sea State (m)	1m	1m
Water Depth (m)	2320m	1494m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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	

Time UTC	FILE	SP	Tape	Description
1052	1	40009	14	SCW_MGR_1055MC's 1st 6600 m SUGOS SUGOS SUGOS SUGOS squared
1117	105	40161	14	Last Full Volume
1117	106	40164	14	Power down to 40 eq in the whale
1129	150	40508	14	First Full Volume
1231	344	40405	14	SCG Dubin at 3 hrs
1237	401	40459	14	Last Full Volume
1247	402	40460	14	Power down to 40 eq in for whale
1257	438	40516	14	First Full Volume SUGOS DT 2.5 ms
1351	643	40701	14	ROT and 14
1351	643	40701	14	ROT and 15
1432	772	40839	15	SCG DT at 2.5 ms
1529	956	41014	15	Comm Error
1540	995	41000	15	SCG DT at 2.5 ms
1547	1015	41073	15	Last full volume power down for turtle
1547	1016	41074	15	no shot
1548	1017	41075	15	40 m/s
1555	1039	41097	15	no fire
1555	1040	41098	15	Full volume
1604	1067	41135	15	SCG DT at 2.4 ms
1640	1174	41232	15	yellow flat much bad
1640	1175	41233	15	Desired shot from estimate position
1641	1176	41234	15	good shot
1700	1242	41301	15	SUGOS DT 11.6 ms
1700	1243	41302	15	SUGOS DT 10.6 ms
1701	1244	41303	15	SUGOS DT 11.2 ms
1702	1245	41304	15	SUGOS DT 11.1 ms
1702	1249	41308	15	SUGOS DT 11.0 ms
1703	1250	41309	15	SUGOS DT -4.4 ms
1703	1251	41310	15	SUGOS DT 10.4 ms
1703	1252	41311	15	SUGOS DT 11.1 ms
1704	1253	41312	15	SUGOS DT 11.0 ms
1704	1254	41313	15	SUGOS DT -3.6 ms
1704	1255	41314	15	SUGOS DT -5.0 ms
1706	1266	41315	15	SUGOS DT -1.4 ms
1706	1267	41316	15	SUGOS DT -4.8 ms
1706	1268	41317	15	SUGOS DT 10.2 ms
1706	1269	41318	15	SUGOS DT 10.1 ms
1706	1269	41319	15	SUGOS DT 10.6 ms
1706	1269	41321	15	SUGOS DT -3.0 ms
1707	1269	41322	15	SUGOS DT 11.5 ms
1714	1286	41345	15	ROT 15
1714	1287	41346	16	ROT 16
1716	1294	41353	16	SCG DT 2.1 ms
1718	1345	41404	16	Lost air pressure
1718	1346	41413	16	Full volume
1819	1499	41538	16	SUGOS auto fire at 6553.5 ms
1821	1501	41539	16	SUGOS DT 11.4 ms
1821	1502	41540	16	SUGOS DT -5.4 ms
1821	1506	41505	16	SUGOS auto fire at 6553.5 ms
1821	1506	41505	16	SUGOS DT -0.2 ms
1821	1507	41506	16	SUGOS DT -10.5 ms
1822	1508	41507	16	SUGOS DT -2.8 ms
1822	1509	41508	16	SUGOS DT 10.5 ms
1823	1510	41509	16	SUGOS DT -3.7 ms
1823	1512	41511	16	SUGOS DT 11.8 ms
1826	1523	41582	16	SCG DT 2.3 ms
1827	1614	41673	16	SUGOS No Fire
1827	1615	41674	16	SUGOS DT 11.1 ms
1827	1616	41675	16	SUGOS No Fire
1827	1617	41676	16	SUGOS DT 11.6 ms
1828	1620	41679	16	SUGOS DT 11.6 ms
1828	1621	41680	16	SUGOS DT 11.6 ms
1828	1622	41704	16	SUGOS No Fire
1828	1623	41705	16	SUGOS No Fire
1828	1624	41706	16	SUGOS No Fire
1828	1625	41707	16	SUGOS No Fire
1828	1626	41708	16	SUGOS No Fire
1828	1627	41709	16	SUGOS No Fire
1828	1628	41710	16	SUGOS No Fire
1828	1629	41711	16	SUGOS No Fire
1828	1630	41712	16	SUGOS No Fire
1828	1631	41713	16	SUGOS No Fire
1828	1632	41714	16	SUGOS No Fire
1828	1633	41715	16	SUGOS No Fire
1828	1634	41716	16	SUGOS No Fire
1828	1635	41717	16	SUGOS No Fire
1828	1636	41718	16	SUGOS No Fire
1828	1637	41719	16	SUGOS No Fire
1828	1638	41720	16	SUGOS No Fire
1828	1639	41721	16	SUGOS No Fire
1828	1640	41722	16	SUGOS No Fire
1828	1641	41723	16	SUGOS No Fire
1828	1642	41724	16	SUGOS No Fire
1828	1643	41725	16	SUGOS No Fire
1828	1644	41726	16	SUGOS No Fire
1828	1645	41727	16	SUGOS No Fire
1828	1646	41728	16	SUGOS No Fire
1828	1647	41729	16	SUGOS No Fire
1828	1648	41730	16	SUGOS No Fire
1828	1649	41731	16	SUGOS No Fire
1828	1650	41732	16	SUGOS No Fire
1828	1651	41733	16	SUGOS No Fire
1828	1652	41734	16	SUGOS No Fire
1828	1653	41735	16	SUGOS No Fire
1828	1654	41736	16	SUGOS No Fire
1828	1655	41737	16	SUGOS No Fire
1828	1656	41738	16	SUGOS No Fire
1828	1657	41739	16	SUGOS No Fire
1828	1658	41740	16	SUGOS No Fire
1828	1659	41741	16	SUGOS No Fire
1828	1660	41742	16	SUGOS No Fire
1828	1661	41743	16	SUGOS No Fire
1828	1662	41744	16	SUGOS No Fire
1828	1663	41745	16	SUGOS No Fire
1828	1664	41746	16	SUGOS No Fire
1828	1665	41747	16	SUGOS No Fire
1828	1666	41748	16	SUGOS No Fire
1828	1667	41749	16	SUGOS No Fire
1828	1668	41750	16	SUGOS No Fire
1828	1669	41751	16	SUGOS No Fire
1828	1670	41752	16	SUGOS No Fire
1828	1671	41753	16	SUGOS No Fire
1828	1672	41754	16	SUGOS No Fire
1828	1673	41755	16	SUGOS No Fire
1828	1674	41756	16	SUGOS No Fire
1828	1675	41757	16	SUGOS No Fire
1828	1676	41758	16	SUGOS No Fire
1828	1677	41759	16	SUGOS No Fire
1828	1678	41760	16	SUGOS No Fire
1828	1679	41761	16	SUGOS No Fire
1828	1680	41762	16	SUGOS No Fire
1828	1681	41763	16	SUGOS No Fire
1828	1682	41764	16	SUGOS No Fire
1828	1683	41765	16	SUGOS No Fire
1828	1684	41766	16	SUGOS No Fire
1828	1685	41767	16	SUGOS No Fire
1828	1686	41768	16	SUGOS No Fire
1828	1687	41769	16	SUGOS No Fire
1828	1688	41770	16	SUGOS No Fire
1828	1689	41771	16	SUGOS No Fire
1828	1690	41772	16	SUGOS No Fire
1828	1691	41773	16	SUGOS No Fire
1828	1692	41774	16	SUGOS No Fire
1828	1693	41775	16	SUGOS No Fire
1828	1694	41776	16	SUGOS No Fire
1828	1695	41777	16	SUGOS No Fire
1828	1696	41778	16	SUGOS No Fire
1828	1697	41779	16	SUGOS No Fire
1828	1698	41780	16	SUGOS No Fire
1828	1699	41781	16	SUGOS No Fire
1828	1700	41782	16	SUGOS No Fire
1828	1701	41783	16	SUGOS No Fire
1828	1702	41784	16	SUGOS No Fire
1828	1703	41785	16	SUGOS No Fire
1828	1704	41786	16	SUGOS No Fire
1828	1705	41787	16	SUGOS No Fire
1828	1706	41788	16	SUGOS No Fire
1828	1707	41789	16	SUGOS No Fire
1828	1708	41790	16	SUGOS No Fire
1828	1709	41791	16	SUGOS No Fire
1828	1710	41792	16	SUGOS No Fire
1828	1711	41793	16	SUGOS No Fire
1828	1712	41794	16	SUGOS No Fire
1828	1713	41795	16	SUGOS No Fire
1828	1714	41796	16	SUGOS No Fire
1828	1715	41797	16	SUGOS No Fire
1828	1716	41798	16	SUGOS No Fire
1828	1717	41799	16	SUGOS No Fire
1828	1718	41800	16	SUGOS No Fire
1828	1719	41801	16	SUGOS No Fire
1828	1720	41802	16	SUGOS No Fire
1828	1721	41803	16	SUGOS No Fire
1828	1722	41804	16	SUGOS No Fire
1828	1723	41805	16	SUGOS No Fire
1828	1724	41806	16	SUGOS No Fire
1828	1725	41807	16	SUGOS No Fire
1828	1726	41808	16	SUGOS No Fire
1828	1727	41809	16	SUGOS No Fire
1828	1728	41810	16	SUGOS No Fire
1828	1729	41811	16	SUGOS No Fire
1828	1730	41812	16	SUGOS No Fire
1828	1731	41813	16	SUGOS No Fire
1828	1732	41814	16	SUGOS No Fire
1828	1733	41815	16	SUGOS No Fire
1828	1734	41816	16	SUGOS No Fire
1828	1735	41817	16	SUGOS No Fire
1828	1736	41818	16	SUGOS No Fire
1828	1737	41819	16	SUGOS No Fire
1828	1738	41820	16	SUGOS No Fire
1828	1739	41821	16	SUGOS No Fire
1828	1740	41822	16	SUGOS No Fire
1828	1741	41823	16	SUGOS No Fire
1828	1742	41824	16	SUGOS No Fire
1828	1743	41825	16	SUGOS No Fire
1828	1744	41826	16	SUGOS No Fire
1828	1745	41827	16	SUGOS No Fire
1828	1746	41828	16	SUGOS No Fire
1828	1747	41829	16	SUGOS No Fire
1828	1748	41830	16	SUGOS No Fire
1828	1749	41831	16	SUGOS No Fire
1828	1750	41832	16	SUGOS No Fire
1828	1751	41833	16	SUGOS No Fire
1828	1752	41834	16	SUGOS No Fire
1828	1753	41835	16	SUGOS No Fire
1828	1754	41836	16	SUGOS No Fire
1828	1755	41837	16	SUGOS No Fire
1828	1756	41838	16	SUGOS No Fire
1828	1757	41839	16	SUGOS No Fire
1828	1758	41840	16	SUGOS No Fire
1828	1759	41841	16	SUGOS No Fire
1828	1760	41842	16	SUGOS No Fire
1828	1761	41843	16	SUGOS No Fire
1828	1762	41844	16	SUGOS No Fire
1828	1763	41845	16	SUGOS No Fire
1828	1764	41846	16	SUGOS No Fire
1828	1765	41847	16	SUGOS No Fire
1828	1766	41848	16	SUGOS No Fire
1828	1767	41849	16	SUGOS No Fire
1828	1768	41850	16	SUGOS No Fire
1828	1769	41851	16	SUGOS No Fire
1828	1770	41852	16	SUGOS No Fire
1828	1771	41853	16	SUGOS No Fire
1828	1772	41854	16	SUGOS No Fire
1828	1773	41855	16	SUGOS No Fire
1828	1774	41856	16	SUGOS No Fire
1828	1775	41857	16	SUGOS No Fire
1828	1776	41858	16	SUGOS No Fire
1828	1777	41859	16	SUGOS No Fire
1828	1778	41860	16	SUGOS No Fire
1828	1779	41861	16	SUGOS No Fire
1828	1780	41862	16	SUGOS No Fire
1828	1781	41863	16	SUGOS No Fire
1828	1782	41864	16	SUGOS No Fire
1828	1783	41865	16	SUGOS No Fire
1828	1784	41866	16	SUGOS No Fire
1828	1785	41867	16	SUGOS No Fire
1828	1786	41868	16	SUGOS No Fire
1828	1787	41869	16	SUGOS No Fire
1828	1788	41870	16	SUGOS No Fire
1828	1789	41871	16	SUGOS No Fire
1828	1790	41872	16	SUGOS No Fire
1828	1791	41873	16	SUGOS No Fire
1828	1792	41874	16	SUGOS No Fire
1828	1793	41875	16	SUGOS No Fire
1828	1794	41876	16	SUGOS No Fire
1828	1795	41877	16	SUGOS No Fire
1828	1796	41878	16	SUGOS No Fire
1828	1797	41879	16	SUGOS No Fire
1828	1798	41880	16	SUGOS No Fire
1828	1799	41881	16	SUGOS No Fire
1828	1800	41882	16	SUGOS No Fire
1828	1801	41883	16	SUGOS No Fire
1828	1802	41884	16	SUGOS No Fire
1828	1803	41885	16	SUGOS No Fire
1828	1804	41886	16	SUGOS No Fire
1828	1805	41887	16	SUGOS No Fire
1828	1806	41888	16	SUGOS No Fire
1828				

Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	18	21
SP #	43039	45256

Line	MGL1305MCS106
Sequence	054
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	43039	45256
Date MM/DD/YY	05/06/13	05/07/13
Time UTC	2225	0830
Volume (cu in.)	6560in3	6560in3
Wind (kts)	N 12	NE 10
Sea State (m)	1m	1.5m
Water Depth (m)	2173m	1858m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	22	25
SP #	46039	48286

Line	MGL1305MCS107
Sequence	055
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	46039	48286
Date MM/DD/YY	05/07/13	05/07/13
Time UTC	0933	2103
Volume (cu in.)	6560in3	6560in3
Wind (kts)	ENE 11	ENE 16
Sea State (m)	1.5m	1m
Water Depth (m)	2337m	1302m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	26	27
SP #	48971	49816

Line	MGL1305MCS107T
Sequence	056
Direction	214

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	48971	49816
Date MM/DD/YY	5/7/13	5/8/13
Time UTC	2200	0230
Volume (cu in.)	6560in3	6600in3
Wind (kts)	E 18	NE 15
Sea State (m)	1.5m	2.0m
Water Depth (m)	1416m	1905m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	28	29
SP #	52021	53170

Line	MGL1305MCS108
Sequence	057
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	52021	53170
Date MM/DD/YY	05/08/13	05/09/13
Time UTC	0238	0731
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NE 15	NE 18
Sea State (m)	2.0m	2m
Water Depth (m)	1792m	1879m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	30	31
SP #	55024	56153

Line	MGL1305MCS109
Sequence	058
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	55024	56153
Date MM/DD/YY	5/8/13	5/8/13
Time UTC	0913	1433
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NNE 18	NE20
Sea State (m)	2m	2m
Water Depth (m)	1991m	1084m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	32	33
SP #	58042	59166

Line	MGL1305MCS110
Sequence	059
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	58042	59166
Date MM/DD/YY	5/8/13	5/8/13
Time UTC	1624	2103
Volume (cu in.)	6600in3	6600in3
Wind (kts)	ENE 11	ENE 12
Sea State (m)	2m	2m
Water Depth (m)	2435m	2123m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	34	35
SP #	61040	62152

Line	MGL1305MCS111
Sequence	060
Direction	137

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	61040	62152
Date MM/DD/YY	5/8/13	05/09/13
Time UTC	2242	0349
Volume (cu in.)	6600in3	6600in3
Wind (kts)	ENE 12	NNE15
Sea State (m)	2m	2m
Water Depth (m)	1703m	1193m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	36	38
SP #	64036	65554

Line	MGL1305MCS112
Sequence	061
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	64036	65554
Date MM/DD/YY	05/09/13	05/09/13
Time UTC	0537	1150
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NNE 14	NE 16
Sea State (m)	2m	2m
Water Depth (m)	2168m	1411m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	39	39
SP #	67021	67592

Line	MGL1305MCS112T
Sequence	062
Direction	085

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	67021	67592
Date MM/DD/YY	05/09/13	5/9/13
Time UTC	1235	1526
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NE 19	E 18
Sea State (m)	2m	2m
Water Depth (m)	1810m	1569m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	40	41
SP #	70015	71137

Line	MGL1305MCS113
Sequence	063
Direction	115

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	70015	71137
Date MM/DD/YY	5/9/13	5/9/13
Time UTC	1531	2111
Volume (cu in.)	6600in3	6600in3
Wind (kts)	E18	NE 15
Sea State (m)	2m	2m
Water Depth (m)	1626m	1414m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	42	43
SP #	73041	74156

Line	MGL1305MCS114
Sequence	064
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	73041	74156
Date MM/DD/YY	5/9/13	05/10/13
Time UTC	2257	0351
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NE 22	NE 22
Sea State (m)	2m	2m
Water Depth (m)	2513m	2198m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	44	45
SP #	76023	77127

Line	MGL1305MCS115
Sequence	065
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	76023	77127
Date MM/DD/YY	05/10/13	05/10/13
Time UTC	0543	1127
Volume (cu in.)	6600in3	6600in3
Wind (kts)	NE 23	NNE 25
Sea State (m)	2m	2.5m
Water Depth (m)	1856m	1772m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	46	47
SP #	79018	80149

Line	MGL1305MCS116
Sequence	066
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	79018	80149
Date MM/DD/YY	5/10/13	5/10/13
Time UTC	1305	1749
Volume (cu in.)	6600in3	6600in3
Wind (kts)		E22
Sea State (m)	2m	2m
Water Depth (m)	2235m	2328m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	48	49
SP #	82016	83154

Line	MGL1305MCS117
Sequence	067
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	82016	83154
Date MM/DD/YY	5/10/13	5/11/13
Time UTC	1948	0124
Volume (cu in.)	6250in3	6250in3
Wind (kts)	E18	ENE 27
Sea State (m)	2m	4m
Water Depth (m)	1875m	1772m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	

Time UTC	FILE	SP	Tape	Description
1948	1	82016	48	SOL MGL1305MCS117 6250 in3 spared S2G02, S4G06,S4G07,S4G08,S4G09,S4G10
1948	2	82017	48	Streamer at 16 at SOL
1949	5	82020	48	Moved streamer to 12
1954	14	82029	48	Streamer at 12 m
2003	37	82052	48	S3G06,07 DT 8.0ms 2.7ms
2003	39	82054	48	S3g07 DT -5.8 ms
2014	76	82091	48	S3G06 -5.8 ms
2014	77	82092	48	S3G06 DT -3.2 ms
2015	79	82094	48	S3G06 DT -3.4 ms
2015	80	82095	48	S3G06 DT -3.3 ms
2016	84	82099	48	S3G07 DT 2.3 ms
2018	94	82109	48	S3G06 DT -4.5 ms
2019	103	82118	48	S3g06,07 DT -4.5 ms -4.8 ms
2022	104	82119	48	S3G06,07 DT -4.8 ms 3.3 ms
2031	136	82151	48	S3G06 DT -4.9 ms
2032	144	82159	48	S4G05 CE
2039	161	82176	48	S3G06 DT -5.6
2041	167	82182	48	S3G06 DT 3.5
2043	174	82189	48	S3G06 DT 3.6
2047	187	82202	48	S3G06 DT -2.8
2051	199	82214	48	S3G07 DT -8.9
2051	200	82215	48	S3G06 DT 9.2
2053	207	82222	48	S3G07 DT 4.4
2101	232	82247	48	S3G07 DT at -4.9ms
2118	287	82302	48	S3G06 DT at -4.2ms
2121	297	82312	48	S3G06 DT at 7.8ms
2121	297	82312	48	S3G07 DT at 4.8ms
2121	298	82313	48	S3G07 DT at 4.9ms
2121	299	82314	48	S3G07 DT at 4.9ms
2122	300	82315	48	S4G05 CE
2124	308	82323	48	S4G05 CE
2125	309	82324	48	S4G05 CE
2134	340	82355	48	S3G06DT at 2.3 ms
2139	357	82372	48	S3G07 DT at -2.7ms
2140	358	82373	48	S3G06 DT at -4.9ms
2140	359	82374	48	S3G06 DT at -4.8 ms
2143	368	82383	48	S3G06 DT at 2.4ms
2144	373	82388	48	S3G07 DT at -2.5ms
2145	374	82389	48	S3G07 DT at -2.6ms
2156	411	82426	48	S3G07 DT at 3.3ms
2157	412	82427	48	S3G06 DT at -2.8ms
2306	643	82658	48	EOT reel 48
2306	644	82659	49	SOT reel 49
2326	721	82736	49	Sent command birds to 13.5 meter depth
2330	733	82748	49	Birds at 13.5 meter except first 4 birds
0103	1066	83081	49	S3G07 CE
0113	1100	83115	49	S3G10 CE
0124	1139	83154	49	EOL

Observers Log

Vessel	Marcus G. Langseth
Client	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	50	51
SP #	85018	86146

Line	MGL1305MCS118
Sequence	068
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	85018	86146
Date MM/DD/YY	05/11/13	05/11/13
Time UTC	0528	1008
Volume (cu in.)	5130in3	6480in3
Wind (kts)	ESE 23	E 26
Sea State (m)	3m	3.5m
Water Depth (m)	2312m	2361m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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
At start of line gun string 3 was not in place due to repairs. String 3 was put in place on SP 85068.
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	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	52	53
SP #	88018	89183

Line	MGL1305MCS119
Sequence	069
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	88018	89183
Date MM/DD/YY	05/11/13	5/11/13
Time UTC	1154	1735
Volume (cu in.)	6480in3	6560in3
Wind (kts)	ENE 23	ENE 22
Sea State (m)	3m	
Water Depth (m)	1664m	1901m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	54	54
SP #	91011	91174

Line	MGL1305MCS119T
Sequence	070
Direction	045

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	91011	91174
Date MM/DD/YY	5/11/13	5/11/13
Time UTC	1805	1851
Volume (cu in.)	6560in3	6560in3
Wind (kts)	ENE 25	ENE 23
Sea State (m)	4m	4m
Water Depth (m)	1795m	1465m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	55	55
SP #	94019	94423

Line	MGL1305MCS119T2
Sequence	071
Direction	353

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	94019	94423
Date MM/DD/YY	5/11/13	5/11/13
Time UTC	1908	2053
Volume (cu in.)	6560in3	6560in3
Wind (kts)	ENE 25	ENE 22
Sea State (m)	4m	3m
Water Depth (m)	1847m	2031m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	56	57
SP #	96886	98138

Line	MGL1305MCS122
Sequence	072
Direction	228

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	96886	98138
Date MM/DD/YY	5/11/13	05/12/13
Time UTC	2109	0300
Volume (cu in.)	6560in3	6520in3
Wind (kts)	ENE 22	NE 17
Sea State (m)	3m	3m
Water Depth (m)	2063m	2348m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	58	59
SP #	99771	100992

Line	MGL1305MCS123
Sequence	073
Direction	013

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	99771	100992
Date MM/DD/YY	05/12/13	05/12/13
Time UTC	0418	0944
Volume (cu in.)	6520in3	6520in3
Wind (kts)	NE 24	ENE 20
Sea State (m)	3m	3m
Water Depth (m)	1689m	1574m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	60	60
SP #	103065	103271

Line	MGL1305MCS123T
Sequence	074
Direction	176

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	103065	103271
Date MM/DD/YY	05/12/13	05/12/13
Time UTC	1115	1220
Volume (cu in.)	6520in3	6520in3
Wind (kts)	ENE 23	ENE 24
Sea State (m)	3m	3m
Water Depth (m)	1408m	2135m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	61	61
SP #	76379	76773

Line	MGL1305MCS115R
Sequence	075
Direction	138

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	76379	76773
Date MM/DD/YY	05/12/13	5/12/13
Time UTC	1224	1417
Volume (cu in.)	6520in3	6520in3
Wind (kts)	ENE 24	ENE23
Sea State (m)	3m	3m
Water Depth (m)	2316m	2026m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable SP	FFSP - 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	62	62
SP #	58425	58927

Line	MGL1305MCS110R
Sequence	076
Direction	284

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	58425	58927
Date MM/DD/YY	05/12/13	5/12/13
Time UTC	1555	1757
Volume (cu in.)	6520in3	6520in3
Wind (kts)	ENE 22	E22
Sea State (m)	3m	3m
Water Depth (m)	2535m	2392m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 Chargable SP
FCSP - First Chargable 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	Pablo Canales/Robert Dunn
Area	MidAtlantic
Job Number	MGL1305

Chief Science Officer	David Martinson		
Science Officer	Bern McKiernan		
Acquisition Leader	Bern McKiernan 12:00-24:00	Klayton Curtis 00:00-12:00	
Navigation Leader	Nigel Crane 12:00-24:00	Mike Martello 00:00-12:00	

	SOL	EOL
Tape #	63	64
SP #	70186	71137

Line	MGL1305MCS113R
Sequence	077
Direction	048

Streamer Parameters				
	1	2	3	4
Length (m)	8000			
Auxiliaries	n/a			
Shotpoint Interval: (m)	37.5			
Offset CS - CNG (m)	264			
Group Interval: (m)	12.5			
Number of channels	636			
Streamer Depth (m)	12.0			
SOL Cable Noise, µB				
EOL Cable Noise, µB				

Source Parameters	
Total Volume	6600 in3
Work Pressure	1950psi +/- 100psi
Dual Source	no
Depth	9
Source Separation	n/a
COS to COS	

Recording Parameters	
Record Length	12288ms
Total recording delay	0
Sample Rate	2ms
Polarity	N/A
Low-Cut	2Hz /12DB
Hi-Cut	103Hz/276 DB
Tape Format	SEGD rev. 2

Description	SOL/FQCSP	EOL/LQCSP
SP	70186	71137
Date MM/DD/YY	5/12/13	05/13/13
Time UTC	1923	0042
Volume (cu in.)	6520in3	6520in3
Wind (kts)	E22	ENE 19
Sea State (m)	3m	2.5m
Water Depth (m)	2106m	1399m

Cable	EOL High Noise Channels (in u-bar)
1	
2	
3	
4	

ProMax - QC the above channels

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 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]