

**Cruise : MGL1109**

To: Office of Marine Operations  
Cc: Reports Group  
Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-07</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	0.000	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	0.000	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-07</b>
Recording	0:00
Line Change	0:00
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	13:28
Seismic Air Compressor	0:00
Mitigation/PAM	0:00
Transit	10:22
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:10
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 57 16.519 N  
1148 27.47152 31.2472 W

HDG: 133 Deg  
Speed 2.0 kts

Wind: ESE @ 15-20 kts  
Seas: 3 - 4 m

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### **3. TIME SUMMARY**

Time	GMT	Event
0:00	0:10	Port Call Kodiak, AK
0:10	10:32	Transit to Survey Area
10:32	0:00	Deploying Streamer

### **4. Comments**

Local vessel time is UTC-8 (AKDT).

#### **Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

#### **Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

#### **Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

### **5. Daily Summary:**

We started out the day finishing up the mobilization in Kodiak, AK for MGL1109. Shortly after the start of the day we got underway for the Survey Area. We transited out for ~10 hours before slowing down to begin streamer deployment which continued through the end of the day.

Tomorrow:

We will complete the streamer deployment and deploy the Source so we can work on the front end geometry. Once all equipment is in its proper location we will acquire a test (Transit) line on our way to the First Production line of the survey, which should start ~13:00 GMT and will continue throughout the day.

Best Regards

Robert Steinhaus

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Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-08</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	91.500	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	91.500	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-08</b>
Recording	10:35
Line Change	1:23
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	9:37
Streamer	2:25
Seismic Air Compressor	0:00
Mitigation/PAM	0:00
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 56 54.399 N  
247 48.794 W

HDG: 259.83 Deg  
Speed 4.5 kts

Wind: WSW @ 10-15 kts  
Seas: 1-2m

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**3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	2:25	Deploying Streamer				
2:25	5:02	Deploying Sub-Array 1				
5:02	8:01	Deploying Sub-Array 2				
8:01	10:06	Deploying Sub-Array 4				
10:06	11:54	Deploying Sub-Array-3				
11:54	12:02	Completing Source Ramp up				
12:02	14:05	Prime MGL1109_Test	1462	1959	497	24.850
14:05	15:28	Line Change				
15:28	0:00	Prime MGL1109_MCS01	924	2257	1333	66.650

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

We started the Day by continuing to deployment of the streamer. Once the streamer was fully deployed the deployment of the source began. There was a learning curve here because the majority of the Mechanics had not been on the vessel before, so the deployment and configuration took a little longer than normal. Once the source was in position the vessel began production on MGL1109\_TEST while on the run in to the first survey line, MGL1109\_MCS01 which was started at 15:28 GMT and continued through the end of the day.

Tomorrow:

We will start the day continuing to acquire MGL1109\_MCS01. Once that is completed we will retrieve Sub-Array #2 for an Air-Leak and to repair S2G4, during the line change to MGL1109\_MCS02. This line will take us through the end of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations  
Cc: Reports Group  
Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-09</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	131.000	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	131.000	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-09</b>
Recording	16:42
Line Change	3:52
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	3:26
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 56 15.1246 N  
147 08.8654 W

HDG: 145.6 Deg  
Speed 4.5 kts

Wind: WSW @ 5-10 kts  
Seas: 1-2m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time		Event	PRIME			
			FSP	LSP	Total SP	Sail Line KM
0:00	5:48	PRIME MGL1109_MCS01	2257	3180	923	46.150
5:48	9:40	Line Change				
9:40	16:41	PRIME MGL1109_MCS02	922	2065	1143	57.150
16:41	18:59	Shut Down for Whale Sighting				
18:59	21:47	PRIME MGL1109_MCS02	2354	2726	372	18.600
21:47	22:55	Shut Down for Whale Sighting				
22:55	0:00	PRIME MGL1109_MCS02	2962	3144	182	9.100

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

We started the day continuing production on MGL1109\_MCS01. On completion we made a normal line change to MGL1109\_MCS02, during which time we retrieved Sub-Array #2 to repair an air leak. Line MGL1109\_MCS02 was started up normally and continued throughout the day. On two different occasions whales were sighted and a shutdown was required. Thirty minutes after the last sighting in both cases the source was ramp-up and production on MGL1109\_MCS02 was continued.

Tomorrow:

We will start the day continuing to acquire MGL1109\_MCS02, which last throughout most of the day. On Completion of MGL1109\_MCS02 we will make a normal line change to MGL1109\_MCS03, during which time we will retrieve Sub-Arrays 3 & 4 for Maintenance and it time allows we will also retrieve Sub-Array 2 for further maintenance on Element 4.

Best Regards  
Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations  
Cc: Reports Group  
Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-10</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	131.000	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	131.000	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-10</b>
Recording	17:28
Line Change	2:54
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	1:40
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	1:58
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 4.415 N  
145 19.988 W

HDG: 203 Deg  
Speed 4.7 kts

Wind: WSW @ 10-15 kts  
Seas: 1-2m

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To: Office of Marine Operations

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Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

### **3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	15:18	PRIME MGL1109_MCS02	3145	5867	2722	136.100
15:18	17:16	Shut Down for Whale Sighting				
17:16	19:26	PRIME MGL1109_MCS02	6134	6527	393	19.650
19:26	22:20	Line Change				
22:20	0:00	Circle Due to Sub-Array 4 Comm. Failure				

### **4. Comments**

Local vessel time is UTC-8 (AKDT).

#### **Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

#### **Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

#### **Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

### **5. Daily Summary:**

We started the day continuing production on MGL1109\_MCS02. Line MGL1109\_MCS02, was completed about 19:26 GMT on one occasion a group of whales was sighted and a shutdown was required. After MGL1109\_MCS02 was complete the vessel made a normal line change towards MGL1109\_MCS03 during which time Sub-Arrays 3 & 4 were picked up for maintenance. After Sub array 4 was redeployed and we were on final approach to Sub-Array Position 1 GCM failed knocking out communication to the whole string. The Approach to MGL 1109\_MCS03 was aborted and the vessel began circling around to make another approach to the line. During the circle Sub-Array 4 was retrieved and repairs were made.

During the Circle the STBD CAT drive engine for the Seismic air compressor shut down automatically on High Jacket Water temp under a steady state condition. The Engine department is working on the STBD CAT Drive Engine to get it back online.

At the end of the day the vessel was completing the circle and turning online to MGL1109\_MCS03.

Also as a note during MGL1109\_MCS02 a Sonobuoy was successfully launch which transmitted data back to the vessel for ~3 hr 20 min.



Lamont-Doherty Earth Observatory  
COLUMBIA UNIVERSITY | EARTH INSTITUTE

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Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

Tomorrow:

We will start the day finishing up the Circle for Source Maintenance / Failure and begin production on MGL1109\_MCS03 which should continue throughout the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations  
Cc: Reports Group  
Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-11</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	186.900	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	186.900	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-11</b>
Recording	21:43
Line Change	0:19
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:30
Hydraulics	0:00
Source	1:22
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	0:06
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 37.399 N  
146 43.987 W

HDG: 251 Deg  
Speed 4.9 kts

Wind: SW @ 10-15 kts  
Seas: 1-2m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

	Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00	1:22	Circle Due to Sub-Array 4 Comm. Failure				
1:22	1:52	Spectra Lockup at Start of MGL1109_MCS03				
1:52	11:09	PRIME MGL1109_MCS03	987	2645	1658	82.900
11:09	11:28	Line Change				
11:28	18:48	PRIME MGL1109_MCS04	1076	2339	1263	63.150
18:48	18:54	Power Down for Dolphin				
18:54	0:00	PRIME MGL1109_MCS04	2358	3175	817	40.850

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

We started the day continuing circle d/t to failure of GCM 1 on Sub-Array 4. We resumed production at 01:52 on line MGL1109\_MCS03, which took us through mid-day. A short line change was made and we began production on MGL1109\_MCS04 throughout the rest of the day. During the run in to MGL1109\_MCS04 it was noticed that Spectra was not sending over the User Header / Time Break to the Syntrak Recording system, the issue was correct without loss of data on the full fold line. Also during MGL1109\_MCS04 there was one power down of the source for Dolphins which last ~6min.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS04. At the completion of the line and during the line change to MGL1109\_MCS05 the Sub-Arrays 1 & 2 will be retrieved for maintenance. Also during this line change the Engine department will be shutting down the Port CAT Drive Engine for the Port Seismic Air Compressor to perform some maintenance items while we are offline. Once the Repairs are completed on Sub-Arrays 1 & 2 as well as the Port Cat Drive Engine the vessel will resume production on Line MGL1109\_MCS06

Best Regards

# Lamont-Doherty Earth Observatory

COLUMBIA UNIVERSITY | EARTH INSTITUTE

**Cruise : MGL1109**

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**USGS #1**

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Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-12</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	173.900	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	173.900	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-12</b>
Recording	20:48
Line Change	1:11
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	1:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	1:01
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 24 50.591 N  
145 19 43.642W

HDG: 097.7 Deg  
Speed 4.8 kts

Wind: E @ 5-10 kts  
Seas: 1-2m

**Cruise : MGL1109**

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To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	0:49	PRIME MGL1109_MCS04	3176	3313	137	6.850
0:49	1:50	Power Down for Whale				
1:50	5:14	PRIME MGL1109_MCS04	3436	4036	600	30.000
5:14	5:29	Line Change				
5:29	6:32	PRIME MGL1109_MCS04A	1001	1128	127	6.350
6:32	7:28	Line Change				
7:28	8:28	Line Change Extended Due To Source				
8:28	0:00	PRIME MGL1109_MCS05	920	3534	2614	130.700

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

Vessel started the day in production on MGL1109\_MCS04 which had one power down for a whale sighting. At the completion of the line MGL1109\_MCS04 we began doing source maintenance on sub-arrays 1 & 2. During this time we continued to run the mitigation element (40in3) on Sub-Array 4 and at the PI's requested continue to acquire data, so a line MGL1109\_MCS4A was started and acquired on 30 sec intervals. Once the vessel started turning on to line MGL1109\_MCS05 the line MGL1109\_MCS04A was concluded. Additional during the line change the Port Compressors drive engine was shut down for some maintenance. On completion of the Maintenance to the Port Compressor Drive Engine and Sub-arrays 1 & 2 the vessel began production on MGL1109\_MCS05 which lasted throughout the day.

Update on STBD Compressor Drive Engine – The #8 cylinder head had a failure of a valve rod, which dropped the head of the valve on to the piston. This caused damage to the top of the piston as well as the Turbo Charger. We do have the cylinder head and spare turbo, but to error on the side of caution, we will not restart the Stbd Compressor Drive Engine until a Cat Tech Rep has had a chance to thoroughly inspected and repair the unit. A new "power pack" assembly (piston/rod/liner) will be delivered to Kodiak to be installed by the Cat Tech Rep during the next port call. NSF has been fully briefed on the situation but OMO.

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Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS05, which will continue throughout the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations  
Cc: Reports Group  
Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-13</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	165.900	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	165.900	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-13</b>
Recording	19:58
Line Change	0:00
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	4:02
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 23 39.444 N  
142 16 43.387 W

HDG: 075 Deg  
Speed 4.3 kts

Wind: NE @ 5-10 kts  
Seas: 1-2m



**Cruise : MGL1109**

**USGS #1**

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Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

	Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00	0:46	PRIME MGL1109_MCS05	3535	3665	130	6.500
0:46	1:48	Power Down for PSO Sighting				
1:48	2:52	PRIME MGL1109_MCS05	3812	3998	186	9.300
2:52	4:04	Power Down for PSO Sighting				
4:04	15:08	PRIME MGL1109_MCS05	4170	6020	1850	92.500
15:08	16:06	Power Down for PSO Sighting				
16:06	16:39	PRIME MGL1109_MCS05	6138	6224	86	4.300
16:39	17:29	Power Down for PSO Sighting				
17:29	0:00	PRIME MGL1109_MCS05	6348	7414	1066	53.300

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

Vessel started the day in production on MGL1109\_MCS05 which lasted throughout the day. There were 4 power downs for PSO Sightings of Marine Mammals.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS05, which will continue until ~18:00 GMT at which time the vessel will make an outside line change to MGL1109\_MCS06 and so some maintenance on Sub-Arrays 3 & 4. Once Maintenance is complete the vessel will begin production on MGL1109\_MCS06.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-14</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	165.300	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	165.300	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-14</b>
Recording	20:15
Line Change	2:43
Weather	0:00
Instrument Acquisition	0:13
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	0:49
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 38 52.855 N  
140 33 24.578 W

HDG: 298 Deg  
Speed 4.5 kts

Wind: N @ 15-20 kts  
Seas: 2-3m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

### **3. TIME SUMMARY**

Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00 16:43	PRIME MGL1109_MCS05	7414	10194	2780	139.000
16:43 19:26	Line Change				
19:26 19:39	Streamer Telemetry Issues				
19:39 19:51	PRIME MGL1109_MCS06	952	981	29	1.450
19:51 20:40	Power Down for PSO Sighting				
20:40 0:00	PRIME MGL1109_MCS06	1091	1588	497	24.850

### **4. Comments**

Local vessel time is UTC-8 (AKDT).

#### **Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

#### **Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

#### **Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

### **5. Daily Summary:**

Vessel started the day in production on MGL1109\_MCS05 which continued until 16:43 GMT. The vessel made outside turn back on to MGL1109\_MCS06. During this line change maintenance on Sub-Array #3 was carried out. MGL1109\_MCS06 was started at 19:51 and continued throughout the rest of the day and had one power down for whale sightings.

During the Day 3 Sonobouy's were launched with 2 of them successfully transmitting data for 20+ km after the vessel pasted.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS06. At the end of MGL1109\_MCS06 the vessel will make a short line change onto MGL1109\_MCS07 and remain on it throughout the rest of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-15</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	196.600	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	196.600	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-15</b>
Recording	23:43
Line Change	0:17
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	0:00
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 54 23.3024 N  
141 18.3436 W

HDG: 179 Deg  
Speed 4.6 kts

Wind: NW @ 15-20 kts  
Seas: 2-3m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

### **3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	4:46	PRIME MGL1109_MCS06	1588	2362	774	38.700
4:46	5:03	Line Change				
5:03	0:00	PRIME MGL1109_MCS06	1072	4230	3158	157.900

### **4. Comments**

Local vessel time is UTC-8 (AKDT).

#### **Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

#### **Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

#### **Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

### **5. Daily Summary:**

Vessel started the day in production on MGL1109\_MCS06 which continued until 04:46 GMT. A short line change was made to MGL1109\_MCS07 which continued throughout the rest of the day

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS07. At the end of MGL1109\_MCS07 the vessel will make a short line change onto MGL1109\_MCS08 and remain on it throughout the rest of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-16</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	174.200	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	174.200	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-16</b>
Recording	22:16
Line Change	0:12
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	01:32
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 53 22 26.685 N  
129 15 13.035 W

HDG: 120 Deg  
Speed 4.0 kts

Wind: SE 20-25 @ 15-20 kts  
Seas: 3-4m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

### **3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	1:57	PRIME MGL1109_MCS07	4231	4554	323	16.150
1:57	2:09	Line Change				
2:09	14:50	PRIME MGL1109_MCS08	1017	2988	1971	98.550
14:50	16:22	Shut Down for Sea Lion				
16:22	0:00	PRIME MGL1109 MCS08	3138	4328	1190	59.500

### **4. Comments**

Local vessel time is UTC-8 (AKDT).

#### **Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

#### **Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

#### **Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

### **5. Daily Summary:**

Vessel started the day in production on MGL1109\_MCS07 which continued until 01:57 GMT. A short line change was made to MGL1109\_MCS08 which continued throughout the rest of the day. There was one shut down for a Sea Lion MGL1109\_MCS08.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS08. At the end of MGL1109\_MCS08 the vessel will make an extended line change for source maintenance on all 4 Sub-Arrays. On completion of the maintenance the vessel will begin production on MGL109\_MCS09 which will last throughout the remainder of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-17</b>	<u>Sailed Km</u>	<u>CMP KM</u>
Prime	148.550	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	148.550	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<u>Time Activity Analysis</u>	<b>2011-06-17</b>
Recording	17:14
Line Change	2:54
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	3:52
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 53 29 43.319 N  
140 43 16.394 W

HDG: 188 Deg  
Speed 4.4 kts

Wind: W 15-20 kts  
Seas: 2-3m



**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

	Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00	2:27	PRIME MGL1109_MCS08	4329	4694	365	18.250
2:27	4:57	Line Change				
4:57	8:49	Extended L/C for Source				
8:49	22:00	PRIME MGL1109_MCS09	915	3250	2335	116.750
22:00	22:24	Line Change				
22:24	0:00	PRIME MGL1109 MCS10	1031	1302	271	13.550

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

Vessel started the day in production on MGL1109\_MCS08 which continued until 02:27 GMT. We started a line change, which would be extended for Source Maintenance. During this line change all four Sub-Arrays were brought onboard. After the source maintenance was complete we began production on MGL1109\_MCS09 which continued until 22:00 when we made a short line change to MGL1109\_MCS10 which continued throughout the rest of the day.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS10. At the end of MGL1109\_MCS10 the vessel will make a short line change to MGL109\_MCS11 which will last throughout the remainder of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-18</b>	<u>Sailed Km</u>	<u>CMP KM</u>
Prime	199.050	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	199.050	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<u>Time Activity Analysis</u>	<b>2011-06-18</b>	
Recording	23:34	
Line Change	0:07	
Weather	0:00	
Instrument Acquisition	0:00	
Instrument Navigation	0:00	
Hydraulics	0:00	
Source	0:00	
Streamer	0:00	
Seismic Air Compressor	0:00	
Mitigation/PAM	0:00	
Transit	0:00	
Ship Repair	0:00	
Maneuvering	0:00	
Port Call	0:00	
Other	0:19	DP Malfunction
Total:	24.00	

**UTC Midnight (24:00) Position / Heading:**

POS: 54 14 36.547 N  
138 33 06.826 W

HDG: 051 Deg  
Speed 4.9 kts

Wind: E 10-15 kts  
Seas: 1-2 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	2:31	PRIME MGL1109_MCS10	1302	1740	438	21.900
2:31	2:38	Line Change				
2:38	2:46	PRIME MGL1109_MCS11	1061	1067		
2:46	2:57	Problems with DP System				
2:57	0:00	PRIME MGL1109_MCS11A	1091	4634	3543	177.150

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_MCS10 which continued until 02:31 GMT. The vessel started a short line change, to MGL1109\_MCS11. At the start of MGL1109\_MCS11 they vessel had a DP System Malfunction (Lockup) and got off course. While the DP System was being repaired the main lab stopped MGL1109\_MCS11 and inserted a New Line MGL1109\_MCS11A to avoid over maneuvering of the vessel. MGL1109\_MCS11A was started and continued throughout the rest of the day without incident.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS11A. At the end of MGL1109\_MCS11A the vessel will make a short line change to MGL1109\_MCS12 which will take it back towards MGL1109\_OBS01 which should be stated shortly after midday GMT.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-19</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	174.450	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	174.450	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-19</b>
Recording	21:01
Line Change	1:27
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	1:32
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 53 56 17.198 N  
138 33 06.826 W

HDG: 296 Deg  
Speed 4.2 kts

Wind: W 10-15 kts  
Seas: 1-2 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	2:47	PRIME MGL1109_MCS11A	4635	5104	469	23.450
2:47	3:50	Line Change				
3:50	5:22	Power Down for Seal Near source				
5:22	15:28	PRIME MGL1109_MCS12	1261	2901	1640	82.000
15:28	15:52	Line Change				
15:52	0:00	PRIME MGL1109_OBS01 (150m SP)	1023	1483	460	69.000

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_MCS11A which continued until 02:47 GMT. The vessel started a short line change, to MGL1109\_MCS12. During this line change a seal was spotted around the source, which was secured until the animal left the area. MGL1109\_MCS12 was started with the source secured until the Animal left the area at 05:22 GMT. At 11:11 GMT while still on line MGL1109\_MCS12 Sub-Arrays were secured and brought onboard for maintenance. Both Sub-Arrays had air leaks that needed to be repaired before starting the first OBS line. Both Sub-Arrays were on deck throughout the rest of MGL1109\_MCS12, through the line change to MGL1109\_OBS01 and for the first 4km of MGL1109\_OBS01. The Source was brought back to full volume on line MGL1109\_OBS01 at 16:23 and production continued normally throughout the rest of the day.

\*\*\*\*\* Note: At 08:36 GMT the Primary USS water pump fail and the backup water pump was brought on line at 09:04 GMT. During the time in between the shutdown and restart the pco2 and TSG data were invalid. At 22:02 the backup pump failed. The USS, pco2 and TSG remained offline for the remainder of the day, while the engineers are making repairs to the water pumps.

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**Tomorrow:**

At the start the day the vessel will continue production on MGL1109\_OBS01. At the end of MGL1109\_OBS01 the vessel will make a short line change to MGL1109\_OBS02 which it will remain on for the rest of the day.

Best Regards  
Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-20</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	174.450	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	174.450	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-20</b>
Recording	23:57
Line Change	0:03
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	0:00
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 22 35.768 N  
141 09 58.468 W

HDG: 005 Deg  
Speed 4.9 kts

Wind: N 5-10 kts  
Seas: 1 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	11:55	PRIME MGL1109_OBS01 (150m SP)	1483	2178	695	104.250
11:55	11:58	Line Change				
11:58	0:00	PRIME MGL1109_OBS01 (150m SP)	1005	1727	722	108.300

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_OBS01 which continued until 11:55 GMT. The vessel started a short line change, to MGL1109\_OBS02, which was continued throughout the rest of the day.

\*\*\*\*\* Note: At 04:30 GMT USS water pump was repaired. The pco2 and TSG were brought back online and no further problems were encountered throughout the rest of the day.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_OBS02. At the end of MGL1109\_OBS02 the vessel will make a short line change to MGL1109\_MCS13 which it will remain on for the rest of the day.

Best Regards

Robert Steinhaus



**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-21</b>	<u>Sailed Km</u>	<u>CMP KM</u>
Prime	201.000	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	201.000	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<u>Time Activity Analysis</u>	<b>2011-06-21</b>
Recording	23:12
Line Change	0:43
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:00
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	0:05
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 56 44 21.918 N  
142 07 43.367 W

HDG: 281 Deg  
Speed 4.7 kts

Wind: NE 10-15 kts  
Seas: 1-2 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

	Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00	15:07	PRIME MGL1109_OBS02 (150m SP)	1728	2609	881	132.150
15:07	15:50	Line Change PRIME				
15:50	17:47	MGL1109_MCS13	1050	1369	319	15.950
17:47	17:52	Power Down for Seal PRIME				
17:52	0:00	MGL1109_MCS13	1384	2442	1058	52.900

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_OBS02 which continued until 15:07 GMT. The vessel started a short line change, to MGL1109\_MCS13, which was continued throughout the rest of the day.

\*\*\*\*\* Note: While on MGL1109\_OBS2 at 02:00 GMT Data Telemetry Errors started appearing on the Streamer. Trouble shooting was started and the issue progressively got worse until at 04:46 GMT it was decided to power down the streamer from the point of the Telemetry error to the tail of the cable. This reduced the active portion of the streamer to 6000m (468 channels) and data recording resumed without any further problems with the data.

\*\*\*\*\* Note: Also while on MGL1109\_OBS2 at 13:54 GMT Sub-Array #2 started having communication errors on the complete string. The String was recovered for trouble shooting while the OBS line continued with a reduced source volume. A shorted out Jumper was found at gun position 4 which caused the string to shot out. When that was fixed the it was found that the power short had also caused damage to GCM S3G07, which was changed and the string redeployed and put back into service.

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS13 which it will remain on for the rest of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-22</b>	<b><u>Sailed Km</u></b>	<b><u>CMP KM</u></b>
Prime	218.150	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	218.150	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-22</b>	
Recording	23:36	
Line Change	0:00	
Weather	0:00	
Instrument Acquisition	0:00	
Instrument Navigation	0:00	
Hydraulics	0:00	
Source	0:00	
Streamer	0:00	
Seismic Air Compressor	0:00	
Mitigation/PAM	0:06	
Transit	0:00	
Ship Repair	0:00	
Maneuvering	0:00	
Port Call	0:00	
Other	0:18	Current Change resulted in Lost Shots
Total:	24:00	

**UTC Midnight (24:00) Position / Heading:**

POS: 57 07 00.388 N  
145 40 59.810 W

HDG: 281 Deg  
Speed 5.0 kts

Wind: W 10-15 kts  
Seas: 1-2 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00	1:52 PRIME MGL1109_MCS13	2443	2764	321	16.050
1:52	1:58 Power Down for PSO Sighting				
1:58	23:42 PRIME MGL1109_MCS13	2784	6826	4042	202.100
23:42	0:00 Missed Shot Points 6792-6826 High vessel Speed (Currents)				

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_MCS13 which continued throughout the rest of the day.

\*\*\*\* Note: While on MGL1109\_MCS13 at 14:00 GMT the data on both the 3.5khz and EM122 had a noticeably increased level of noise on it. After some investigation it was determined that the sonar's were getting interference from an outside source. ~6 miles to the north of our location traveling the same direction and speed was US Navy Warship 70 (CG-70 USS Lake Erie). We made contact with them and asked if they had any sonar's in operation and if so, would it be possible for them to secure them. They agreed and at 17:25 GMT an improvement to our 3.5khz and EM122 data was observed.

\*\*\*\*\* Note: Also while on MGL1109\_MCS13 at 23:42 GMT the vessel entered a following current which increased the vessel speed over ground to close to 6 kts. This speed made the cycle time between shot points too fast and caused Syntrak recording system buffers to fill up and start missing shot points. It took a power rest of the Streamer Cable to reset the Syntrak's buffers and allow recording to resume.

Tomorrow:

At the start of the day the vessel will continue production on MGL1109\_MCS13. When complete we will make a shot line change onto MGL1109\_MCS14 which will continue throughout the rest of the day.

Best Regards  
Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-23</b>	<u>Sailed Km</u>	<u>CMP KM</u>
Prime	218.150	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	218.150	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<b><u>Time Activity Analysis</u></b>	<b>2011-06-23</b>	
Recording	23:11	
Line Change	0:06	
Weather	0:00	
Instrument Acquisition	0:00	
Instrument Navigation	0:00	
Hydraulics	0:00	
Source	0:00	
Streamer	0:00	
Seismic Air Compressor	0:00	
Mitigation/PAM	0:42	
Transit	0:00	
Ship Repair	0:00	
Maneuvering	0:00	
Port Call	0:00	
Other	0:01	Current Change resulted in Lost Shots
Total:	24:00	

**UTC Midnight (24:00) Position / Heading:**

POS: 56 16 47.500 N  
148 21 49.730 W

HDG: 218 Deg  
Speed 4.2 kts

Wind: W @ 15 -20 kts  
Seas: 1-2 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time	Event	FSP	LSP	Total SP	Sail Line KM
	Missed Shot Points 6851-6854 High vessel Speed				
0:00	0:01 (Currents)				
0:01	1:16 PRIME MGL1109_MCS13	6855	7095	240	12.000
1:16	1:58 Power down for Dolphin				
1:58	6:07 PRIME MGL1109_MCS13	7223	8027	804	40.200
6:07	6:13 Line Change				
6:13	0:00 PRIME MGL1109_MCS14	1028	3941	2913	145.650

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_MCS13 which continued until 06:07. The vessel made a short line change to MGL1109\_MCS14, which continued throughout the day without incident.

\*\*\*\*NOTE: One PSO Sighting during the day of a group of Dolphins required a power down and ramp up on MGL1109\_MCS13 which took ~42 minutes before the full source array as back online to full volume.

Tomorrow:

At the start the day the vessel will continue production on MGL1109\_MCS14 which will continue throughout the rest of the day.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-24</b>	<u>Sailed Km</u>	<u>CMP KM</u>
Prime	170.950	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	170.950	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<u>Time Activity Analysis</u>	<b>2011-06-24</b>
Recording	18:39
Line Change	2:30
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:28
Hydraulics	0:00
Source	0:16
Streamer	0:00
Seismic Air Compressor	0:00
Mitigation/PAM	2:07
Transit	0:00
Ship Repair	0:00
Maneuvering	0:00
Port Call	0:00
Other	0:00
Total:	24.00

**UTC Midnight (24:00) Position / Heading:**

POS: 55 05 38.795 N  
150 23 34.098 W

HDG: 323.5 Deg  
Speed 4.7 kts

Wind: SE @ 15 -20 kts  
Seas: 1-2 m



**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time	Event	FSP	LSP	Total SP	Sail Line KM
0:00	2:50 PRIME MGL1109_MCS14	3942	4401	459	22.950
2:50	3:52 Power down for Whale				
3:52	14:45 PRIME MGL1109_MCS14	4552	6606	2054	102.700
14:45	14:50 Power down for Whale				
14:50	16:46 PRIME MGL1109_MCS14	6623	6975	352	17.600
16:46	17:46 Power down for Whale				
17:46	18:27 PRIME MGL1109_MCS14	7097	7243	146	7.300
18:27	18:51 Navigation Network Lock up				
18:51	19:09 PRIME MGL1109_MCS14	7339	7384	45	2.250
19:09	19:13 Navigation Network Lock up				
19:13	20:51 PRIME MGL1109_MCS14	7398	7695	297	14.850
20:51	23:21 Line change				
23:21	23:37 Extended line Change for Source Maintenance				
23:37	0:00 PRIME MGL1109_MCS15	919	985	66	3.300

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_MCS14 which continued until 20:51 GMT. There were three power downs for PSO Sightings and two different Navigation System lockups which resulted in the loose of data. At the completion of the line the vessel made a line change to MGL1109\_MCS15 during that time the Drive Engine for the Port Seismic Air Compressor was shut down to change filter as well Sub-Arrays 1 & 2 were retrieved for Maintenance. The vessel resumed production on MGL1109\_MCS15 at 23:37 which continued throughout the day without incident.

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**Tomorrow:**

At the start the day the vessel will continue production on MGL1109\_MCS15 which will continue until ~22:00 GMT at which time we will begin recovery of all towed equipment, so the vessel can make it way to Kodiak for a early morning arrival on the 26<sup>th</sup> of June.

Best Regards

Robert Steinhaus

**Cruise : MGL1109**

To: Office of Marine Operations

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**USGS #1**

**R/V Marcus G. Langseth**

**1. PRODUCTION SUMMARY**

<b>2011-06-25</b>	<u>Sailed Km</u>	<u>CMP KM</u>
Prime	190.700	0.000
Infill	0.000	0.000
Reshoot	0.000	0.000
Total:	190.700	0.000

**2. STATISTICAL ANALYSIS (DECIMAL HOURS)**

<u>Time Activity Analysis</u>	<b>2011-06-25</b>
Recording	21:53
Line Change	0:00
Weather	0:00
Instrument Acquisition	0:00
Instrument Navigation	0:00
Hydraulics	0:00
Source	0:56
Streamer	0:37
Seismic Air Compressor	0:00
Mitigation/PAM	0:00
Transit	0:00
Ship Repair	0:00
Maneuvering	0:34
Port Call	0:00
Other	0:00
Total:	24.00

Turning Fair wind to begin retrieval of towed equipment

**UTC Midnight (24:00) Position / Heading:**

POS: 56 31.0404 N  
152 22.1163 W

HDG: 271 Deg  
Speed 2.9 kts

Wind: SE @ 10-15 kts  
Seas: 1 m

**Cruise : MGL1109**

**USGS #1**

To: Office of Marine Operations

**R/V Marcus G. Langseth**

Cc: Reports Group

Fm: Robert Steinhaus – Chief Science Officer (LDEO)

**3. TIME SUMMARY**

Time		Event	FSP	LSP	Total SP	Sail Line KM
0:00	21:53	PRIME MGL1109_MCS15	985	4799	3814	190.700
21:53	22:27	Maneuvering				
22:27	23:23	Picking up Source				
23:23	0:00	Picking up Streamer				

**4. Comments**

Local vessel time is UTC-8 (AKDT).

**Science Technical staff on board:**

Gutierrez, McKiernan, Ng, DeLong, Felix, Martinson, Francis, Steinhaus, Coons, Gilsdorf, White

**Science Party on board:**

Gulick, Childs, Barth, Hart, Sliter, Johnson, Reece, Lester, Everson, Levoir

**Marine Mammal Observer Staff on board:**

Milne, Wood, Davis, Voigtlander, Piercy

**5. Daily Summary:**

The Vessel started the day in production on MGL1109\_MCS15 which continued until 21:53 GMT. At which time we end the line and began maneuvering fair seas to begin retrieval of towed equipment. At 22:27 the vessel began recovery of all towed equipment, which continued throughout the rest of the day.

Tomorrow:

At the start the day the vessel will continue retrieval of all towed equipment. Once all equipment is onboard and secure the vessel will begin a transit to Kodiak, Alaska. Arrival time is expected to be arrive at ~16:00 GMT secured to the dock to begin the Demobilization of MGL1109.

Best Regards

Robert Steinhaus